PITT TECHNICAL INSTITUTE

GENERAL CATALOG
1978-1980

Pitt Technical Institute publishes this catalog for the purpose of providing students and other interested persons with information about the Institute and its programs. The provisions of the catalog are not to be regarded as an irrevocable contract between students and Pitt Technical Institute. The Institute reserves the right to change any provisions, requirements, or schedules at any time or to add or withdraw courses or program offerings.

Every effort will be made to minimize the inconvenience such changes might create for students.

Students having questions not answered in this publication may secure additional information from the Dean of Students, Pitt Technical Institute, P.O. Drawer 7007, Greenville, North Carolina 27834.
Telephone 756-3130.

Pitt Technical Institute admits all eligible applicants into the Institute without regard to race, sex, creed, color or national origin. Membership in student organizations is open to all students regardless of race, sex, creed, color, or national origin.

Pitt Technical Institute does not discriminate on the basis of handicap in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal laws and regulations.

AN EQUAL OPPORTUNITY EMPLOYER

PITT TECHNICAL INSTITUTE

GREENVILLE
NORTH CAROLINA

Recognized and Approved By
North Carolina State Board of Education
North Carolina Department of Community Colleges
Division of Vocational Rehabilitation
North Carolina Commission for the Blind
North Carolina State Board of Nursing

Member of
American Association of Community and Junior Colleges
North Carolina Department of Community Colleges
Association of Institutional Administration
Student Government Association
Student Services Personnel Association
Southern Association of Student Financial Aid Officers
Carolinas Association of Collegiate Registrars and Admissions Officers
American Institute of Architects

Accredited by

Southern Association of Colleges and Schools
North Carolina State Board of Education

Catalog of Courses
Day and Evening School

Volume IX
1978-1980

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*Asterisk indicates Departmental Chairperson.

CALENDAR 1978-1979

FALL QUARTER

September	5	Tuesday	Faculty Orientation and Student Registration
	6	Wednesday	Registration
	7	Thursday	First Day of Classes
	14	Thursday	Last Day to Drop/Add Classes
November	22	Wednesday	Last Day of Classes

WINTER QUARTER

November	30	Thursday	Registration
December	1	Friday	First Day of Classes
	8	Friday	Last Day to Drop/Add Classes
	21	Thursday	First Day of Christmas Holidays
January	2	Tuesday	Classes Begin After Christmas Holidays
February	27	Tuesday	Last Day of Classes

SPRING QUARTER

March	5	Monday	Registration
	6	Tuesday	First Day of Classes
	13	Tuesday	Last Day to Drop/Add Classes
April	13	Friday	First Day of Easter Holidays
	17	Tuesday	Classes Begin After Easter Holidays
May	23	Wednesday	Last Day of Classes
	25	Friday	Graduation

SUMMER QUARTER

May	29	Tuesday	Registration, Summer Quarter and First Summer Session
May	30	Wednesday	First Day of Classes
June	5	Tuesday	Last Day to Drop/Add Classes
July	4	Wednesday	Independence Day Holiday
	6	Friday	First Summer Session Ends
	9	Monday	Registration Second Summer Session
	10	Tuesday	First Day of Classes
	16	Monday	Last Day to Drop/Add Classes
	23	Monday	First Day of Summer Break
	30	Monday	Classes Resume After Summer Break
August	14	Tuesday	New Student Orientation
	15	Wednesday	New Student Orientation
	22	Wednesday	Summer Quarter Ends
	24	Friday	Graduation

CALENDAR 1979-80

FALL QUARTER

September	4	Tuesday	Faculty Orientation and Registration
	5	Wednesday	Registration
	6	Thursday	First Day of Classes
	13	Thursday	Last Day to Drop/Add Classes
November	21	Wednesday	Last Day of Classes

WINTER QUARTER

November	29	Thursday	Registration
	30	Friday	First Day of Classes
December	7	Friday	Last Day to Drop/Add Classes
	21	Friday	First Day of Christmas Holidays
January	2	Wednesday	Classes Begin After Christmas Holidays
February	26	Tuesday	Last Day of Classes

SPRING QUARTER

March	3	Monday	Registration
	4	Tuesday	First Day of Classes
	11	Tuesday	Last Day to Drop/Add Classes
April	4	Friday	Easter Holiday
	7	Monday	Easter Holiday
May	21	Wednesday	Last Day of Classes
	23	Friday	Graduation

SUMMER QUARTER

May	27	Tuesday	Registration Summer Quarter
	28	Wednesday	First Day of Classes
June	3	Tuesday	Last Day to Drop/Add Classes
July	3	Thursday	First Summer Session Ends
	4	Friday	Independence Day Holiday
	7	Monday	Registration Second Summer Session
	8	Tuesday	Classes Begin Second Summer Session
	14	Monday	Last Day to Drop/Add Classes
	21	Monday	First Day of Summer Break
	28	Monday	Classes Begin After Summer Break
August	12	Tuesday	New Student Orientation
	13	Wednesday	New Student Orientation
	20	Wednesday	Last Day of Classes
	22	Friday	Graduation

GENERAL INFORMATON

GENERAL INFORMATION

History of the Institute

In March, 1961, Pitt Technical Institute was chartered and designated by the State Board of Education as an Industrial Education Center. The Institute began its operation as Pitt Industrial Education Center during the same year. The programs developed and expanded, and in 1964 the school was designated a technical institute by the State Board of Education. The name was changed in July, 1964, to Pitt Technical Institute, and it opened in its new facilities in September, 1964, with nine curriculums and ninety-six students.

In 1970, a second building was completed, providing an additional 31,458 square feet to serve the citizens of Pitt County. The Administration Building and the Humber Building have approximately 120,000 square feet of useable space with well designed laboratories, shops, classrooms, library, student lounge, and learning center.

A new annex to the Administration Building was completed in 1975. The annex houses a new student lounge and various recreational facilities, and the electronic data processing and nursing curriculums.

In September, 1977, Pitt Tech reached an enrollment of 1812 students. Presently, the Institute has 23 technical curriculums, 13 diploma programs, and various certificate programs.

New Construction

A new shop/classroom building is currently under construction; completion is scheduled for April, 1979. This 26,000 square foot facility will house several vocational and technical programs — three of which are currently being taught off-campus.

Location

The Institute is located on Highway 11, South, between Greenville and Winterville.

STATEMENT OF PURPOSE

The purpose of Pitt Technical Institute is to provide an environment and atmosphere conducive to occupational education designed to fill the manpower need in our society and to provide for the fullest possible development of the potential of each student so that he may attain effective citizenship in his society.

Toward this end, Pitt Technical Institute is committed:

1. To provide expanded educational opportunities for young people and adults who desire to continue their education.
2. To provide relatively inexpensive, nearby educational opportunities for high school graduates, school dropouts, and adults.
3. To provide technician programs, preparing students for jobs of this level in industry, agriculture, business, and service occupations.
4. To provide vocational programs of less than technical level, preparing students for jobs requiring different levels of ability and skill.
5. To provide programs of technical and vocational education for employed

and underemployed adults who need training or retraining, or who can otherwise profit from the program.

6. To provide short courses that will meet the general adult and community service needs of the people.

AREAS OF STUDY AT PITT TECHNICAL INSTITUTE

ASSOCIATE IN APPLIED SCIENCE DEGREE PROGRAMS

Accounting
Agriculture Business Technology
Agriculture Chemicals Technology
Agricultural Science
Air and Water Resources Technology
Architectural Drafting
Banking & Finance
Business Administration
Commercial Art and Graphic Design
Early Childhood Specialist
Educational Associate
Electronic Data Processing-Business
Electronics Technology
General Office Technology
Human Services Technology (Mental Health)
Industrial Maintenance Technology
Industrial Management Technology
Nursing Education
Paralegal Technology
Police Science
Radiologic Technology
Secretarial Science

DIPLOMA PROGRAMS
Auto Body Repair
Automotive Mechanics (one or two-year option)
Carpentry and Cabinet Making
Cosmetology
Electrical Installation and Maintenance
Electric Motor Repair
Electronics Servicing (one or two-year option)
Heating, Refrigeration and Air-Conditioning
Machinist Trade (one or two-year option)
Masonry
Operating Room Technician
Parts Counterman
Practical Nurse Education
Teacher Assistant

CERTIFICATE PROGRAMS
Hospital Ward Clerk
Nurse Assistant
Surveying
Veterans Farm Cooperative

ACCREDITATION AND PROFESSIONAL ORGANIZATIONS

Department of Community Colleges

Pitt Technical Institute is accredited by the North Carolina State Department of Community Colleges under the State Board of Education, as specified in Chapter 115A of the General Statutes of North Carolina.

The Department of Community Colleges and the State Board of Education has granted the Institute Board of Trustees the authority to award the Associate in Applied Science Degree for the completion of the two-year technology curriculum and the two-year business curricula and the awarding of the Diploma for all vocational curricula.

Regional Accreditation

Pitt Technical Institute is accredited by the Southern Association of Colleges and Schools.

Pitt Technical Institute is recognized by the U.S. Department of Education as being an institution of higher learning and qualified to receive Federal assistance in all of its higher education programs.

Pitt Technical Institute is an institutional member of the American Association of Community and Junior Colleges.

The programs at Pitt Technical Institute are approved for V.A. benefits.

ADMISSION PROCEDURES

The admission procedures of Pitt Technical Institute are designed to create a feeling of personal interest in the applicant and his plans for the future.

A. Pitt Technical Institute operates under the "open-door" policy as set forth by the North Carolina Department of Community Colleges and the State Board of Education. Specifically the State Board recommends that all technical institutes and community colleges shall maintain an open-door admission policy for all applicants who are high school graduates or high school leavers 18 years of age or older. The Institute has the right to selectively place these applicants.

B. The basic requirements for curriculum programs are as follows:
   (1) High school graduation is required for all programs except vocational trade programs, which require a student to have at least 8 units of high school work or its equivalent.
   (2) High school equivalency diplomas will be accepted in lieu of graduation from a regular high school.
   (3) A completed health questionnaire signed by the student must be furnished prior to enrollment in the Institute.
   (4) A completed application blank must be submitted.
   (5) A Placement Test is administered to all students who enroll at the Institute.
   (6) Applicants for Electronics Technology and Architectural Drafting should have completed two units of mathematics, one of which is in algebra and the other in plane geometry or an equivalent in modern mathematics. (The Institute will waive the math requirements if a student, in the judgment of his department head and counselor, has

the necessary mathematical aptitude as determined by the North Carolina Community College Pre-Math Test.)

(7) All applicants should make an appointment with one of the guidance counselors for a personal interview during the summer prior to their enrollment into the Institute. The counseling session is designed to acquaint the student with the Institute and to help determine if the student has made a wise choice in the program selection.

(8) All new students are required to participate in the Orientation Program.

C. Pitt Technical Institute will accept students from other institutes or colleges provided.

(1) Formal application is submitted.

(2) Transcript of college or technical institute credit is furnished by all previously attended institutions.

(3) Student is in good standing with former institution.

(4) Passing grades will be considered for acceptance.

(5) A completed health questionnaire signed by the student must be furnished prior to enrollment in the Institute.

D. Adult Education — Admission requirements for classes in adult education are determined on the basis of each such class offered.

E. Evening Curriculum Programs — The same admission requirements for full-time day curriculum programs are also applicable to evening curriculum programs, with the following exemptions:

(1) The Institute will waive admission requirements for evening curriculum programs should the student desire to enroll in a course for audit only. The audit student must pay the same tuition, but he will receive no credit for the course.

(2) The Institute will waive the admission requirements for the evening curriculum if the applicant holds either an A.A.S. degree, B.S. degree, or any other academic degree, but the applicant must provide the Institute with a transcript of his work at his previous institution.

F. Readmission of Curriculum Students — Students re-entering after one or more quarters out of school will follow normal registration procedures. If the student was out of school as a result of disciplinary action, he must appear before the Judiciary Council and petition for readmission to the Institute.

G. Admission procedures for the Allied Health Programs differ from the above in that the following is required:

(1) Applicants must come to the Institute and take the School and College Ability TEST (SCAT) and the Otis or Hemmon-Nelson Mental Ability Test.

(2) Three letters of recommendation are required for Nursing and Radiology.

(3) A health certificate showing a clean bill of health attested to by a licensed physician must be submitted.

(4) A personal interview with the Director of the specific Health Education Program is required.

GRADUATION REQUIREMENTS

Candidates for graduation at the beginning of the quarter in which they plan to graduate and no later than the third (3rd) week of that quarter should complete the following requirements:

Meet with his advisor and complete a graduation check list which is to be submitted to the Registrar.

After a complete check, the Registrar will notify the Dean of Students and the student that everything is in order for graduation, or he will notify the student through his advisor if it is not.

After receipt of a favorable notification, the Dean of Students will order the proper document.

No student may graduate unless he has at least a 2.0 grade point average.

No charge is made for the degree, diploma, or certificate.

NOTE: No degree, diploma, certificate, or transcript of a record will be issued to a student who has not made SATISFACTORY SETTLEMENT with the Accounting Office for all his INDEBTEDNESS TO THE INSTITUTE. This regulation applies to each quarter's registration.

EXPENSES, TUITION, AND FEES

Pitt Technical Institute receives financial support from local, state and federal sources, allowing each student an educational opportunity at minimum cost. Tuition fees are set by the State Board of Education and are subject to change without notice. Cost of textbooks, laboratory fees and supplies are additional expenses which vary according to the program of study. The payment of all fees is required at the time of registration. School tuition and fees may change without advanced notice.

The tuition schedule is explained as follows:

FULL-TIME STUDENTS

All vocational, technical, and audit students who are enrolled for twelve (12) or more credit hours are charged a maximum of $39.00 per quarter.

PART-TIME STUDENTS

The tuition charge for curriculum credit students (and audit students) is $3.25 times the number of credit hours for which the student is enrolled. Example: 9 credit hours x $3.25 equals $29.25.

OUT-OF-STATE STUDENTS

The entrance requirements and admission procedures for persons who reside outside the State of North Carolina are the same as for residents. Tuition for non-residents is $198.00 per quarter for full-time enrollment. For out-of-state students the fee is $16.50 per credit hour.

STUDENT ACTIVITY FEE

The Student Activity Fee for each full-time student (12 credit hours or more) is $6.00 per quarter. Those students registered for nine through eleven (9-11) credit hours are charged $4.00 per quarter. Students registered for six through eight (6-8) credit hours are charged $2.00 per quarter and students registered for less than six credit hours are charged $1.00 per quarter. There will be no change to the above regulation, with the exception that only day students are subject to the activity fee.

REFUND POLICY

Tuition refund for students shall not be made unless the student is, in the judgment of the institution, compelled to withdraw for unavoidable reasons. In such cases, two-thirds (2/3) of the student's tuition may be refunded if the student withdraws within (10) calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered after that time. Tuition refunds will not be considered for tuitions of $5.00 or less, unless a course or curriculum fails to materialize due to no fault of the student. *Exception:* Those students who are veterans or war orphans receiving benefits under U.S. Code, Title 38, chapters 33 and 35 may be refunded the *pro rata* portion of the tuition fee not used at the time of withdrawal of such students.

There is no refund on such payments as activity fee, and insurance premium fee.

Students desiring a tuition refund are asked to follow the steps listed below:

1. Read the above paragraphs.
2. Contact the Registrar's Office for approval to officially withdraw from classes (see *Official Withdrawal*) and obtain the appropriate withdrawal form.
3. Complete the withdrawal form.
4. Contact the Dean of Students for approval and a written request to receive a tuition refund.
5. Submit the completed withdrawal form and the written request for tuition refund to the Business Office.

GRADE POINT AVERAGE (G.P.A.)

The Grade Point Average is determined by dividing the total number of quality points by the total number of credit hours of work attempted.

DEANS LIST AND HONOR ROLL

All full-time technical and vocational students maintaining a quarterly grade point average between 3.50 and 4.00 will be recognized on the Dean's List.

A quarterly grade point average between 3.00 and 3.49 will entitle full-time technical and vocational students to be listed on the Honor Roll.

The Dean's List and Honor Roll are prepared by the Registrar's office and mailed to all local or area newspapers of the students' qualifying for either of these two.

A student with an "Incomplete" grade is not eligible for the Dean's List or Honor Roll in the quarter the "Incomplete" is received.

TEXTBOOKS AND SUPPLIES

The cost of textbooks and supplies vary according to the program of study. These items may be purchased from the Bookstore.

ACCIDENT INSURANCE

Accident insurance, covering hours in school and transportation to and from school is available for $4.00 per year. This insurance is strongly recommended, though not required.

GRADING SYSTEM

The following is the grading system used by Pitt Technical Institute.

Letter	Numerical Equivalent	Quality Point Per Quarter Hour
A	93-100	4
B	85-92	3
C	77-84	2
D	70-76	1
F	Below 70-Failing	0
W	Withdrew	0
X	Never Attended	0
*I	Incomplete	0
*	Audit	Aud 0

*Not included in computing grade point average.

EXPLANATION OF GRADES

Incomplete

An Incomplete is given at the discretion of the instructor when a student is demonstrating progress in a course but needs more than one quarter to complete the requirements of the course. To qualify for a grade of I, a student must be enrolled in a course during the last ten days of the quarter and must have completed at least 50 percent of the course with a passing grade. (The instructor has the discretion to require that more than 50 percent of the course be completed before giving an I.)

Guidelines for Removal of the Incomplete

A student who does not re-enroll in a course to remove an I must make arrangements to remove the I during the first eight weeks of the next quarter the student is enrolled in school. Otherwise, the grade becomes an F, unless an extension of time limit is approved by the instructor, department head, and Assistant Dean of Instruction for Curricular programs. The student has the responsibility to contact the instructor regarding a grade of I and to make arrangements to complete the necessary work to remove the I within the time allowed. It is recommended that a "contract" of conditions for completion and time limit be executed at the time the I is given by the instructor and signed by both instructor and student.

The instructor, or if absent, the department head will set the criteria for the removal of the I grade. The criteria is to be in line with the guidelines of the departmental policy. A student may be required to retake the course.

A student receiving an I in a prerequisite course may not proceed to the sequential course without permission of the instructor or, if absent, the department head.

AUDIT

Students taking courses as auditors are not required to take examinations or hand in written work but may do so if they wish. No grade or credit toward a degree or diploma is given.

Students in degree or diploma programs needing special services or developmental work may be advised to audit some courses rather than register for them for credit. Under these circumstances, they would be required to complete course requirements and could petition for proficiency credit when the requirements of the course were met.

REGISTRATION PROCEDURES

The Institute year consists of four quarters. Students who are pursuing a curriculum must preregister or register at the beginning of each quarter as they progress toward their educational objectives. Returning students must make satisfactory settlement with the Accounting Office for all indebtedness before registering. All students will register during the prescribed registration period for that quarter (refer to school calendar.)

PREREGISTRATION

Preregistration is usually held around the middle of the quarter and is a time when the student and the advisor can review the student's academic progress and plan the student's courses for the upcoming quarter.

It is an important part of the student's program. The student, with his advisor, has an opportunity to discuss academic problems on an individual basis and keep abreast of his or her progress.

Only those students currently enrolled and not on academic probation are allowed to preregister.

Those students failing to preregister at their designated time must complete registration on registration day.

PREPAYMENT

Prepayment is held each quarter, except for fall quarter, one week after preregistration.

Only those students currently enrolled and not on academic probation are allowed the privilege of pre-paying.

LATE REGISTRATION

A student may register late for class(es) provided:

(1) The class is not cancelled or closed.

(2) The student was pre-advised or otherwise fully admissible to the courses for which he registers.

(3) The student convinces his advisor and the Dean of Students that it was impossible or would have involved extreme hardship for him to register at the appointed time. Negative decisions may be appealed.

(4) A late registration fee of $5 is charged for those who are allowed to register after the first 2 class days.

AUDITING COURSES

Students who wish to audit courses must register for such courses. Auditors, receive no credit but are encouraged to attend class, participate in discussions, and take examinations. Fees and tuition for auditors are the same as for regular students.

The student must clearly indicate on the registration form which classes are to be audited. This must be done at the time of registration and the decision to audit or not to audit classes may not be changed after the initial registration.

COURSE LOAD

A two-year technical or vocational student who carries a 12 quarter-hour load is considered a full-time student. The normal load is 15 to 18 hours. A vocational student must carry a minimum of 12 credit hours and 22 contact hours to be classified full time. A student registering for more than 20 credit hours must have a cumulative grade point average of 2.0 or above or permission of the department chairperson.

Students who are employed more than 15 hours per week should reduce their class load accordingly. The beginning student who has full-time employment is urged to limit his class load to 9 to 12 quarter hours until he has demonstrated his ability to carry a heavier schedule.

One-year vocational students will take the courses as prescribed in the curricula outlines, or as they may choose to limit themselves.

ATTENDANCE

Regular and punctual class attendance is expected of all students in order for them to achieve their highest potential in the curriculum they have chosen and to develop desirable personal traits necessary to obtain employment after graduation. Students who anticipate absence should contact their instructor prior to the absence if possible. It is the student's responsibility to make up work missed as soon as possible.

A student will be dropped from a class according to the following reasons:

1. Students will be dropped from any class when their absences from the class begin to affect the quality of their class work and their class grades. This will be determined by the judgment of the class instructor.
2. Also, any student who is absent five consecutive class meetings will be dropped from the class.
3. For evening students, any student who is absent two consecutive class meetings must secure permission from the Evening Director or the Dean of Students to continue in the class.

Students who have been dropped and have a valid reason for the absence may be reinstated at the discretion of the instructor. Should the instructor deny reinstatement, the student has recourse to appeal to the office of the Dean of Students.

CLASS SCHEDULE

Pitt Technical Institute offers classes between the hours of 8:00 A.M. and 10:00 P.M. five days per week, except on Friday all classes end at 6:00 P.M. The majority of the credit courses are offered between the hours of 8:00 A.M. and 6:00 P.M. When the demand justifies, at least one section of each curriculum course is offered during the evening hours.

Non-credit courses for personal, occupational, and community improvement are offered during both day and evening hours.

It is possible with careful planning to complete most of the work required for a degree or diploma by attending evening classes.

CHANGES IN REGULATIONS

Pitt Technical Institute reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as deemed necessary.

CHANGE IN MAJOR COURSE OF STUDY

Any student desiring to change his major course of study must complete and return the request form to the Registrar's Office. No student will be allowed to register or pre-register until this form is returned to the Registrar's Office.

STUDENT CLASSIFICATION

Freshman	A student who has earned fewer than 54 quarter hours of credit.
Sophomore	A student who has earned more than 54 quarter hours of credit.
Full-time Technical Student	A student who is registered for twelve (12) or more quarter hours of credit.
Part-time Student	A student who is registered for eleven (11) quarter hours of credit or less.
Special Student	A full-time or part-time student not seeking a degree or diploma. Audit students are also included in this classification.
Full-time Vocational Student	A student who is registered for twelve (12) or more credit hours and at least 22 clock hours.

TRANSFER CREDIT

All students desiring to have credits transferred from another institution to Pitt Technical Institute must submit an official transcript to the Office of the Registrar. All transcripts submitted will become the property of Pitt Technical Institute.

Transcripts for all students enrolled in a curricular program will be evaluated automatically.

Students transferring to Pitt Technical Institute may transfer all courses with comparable course content so long as the GPA of all courses being transferred does not fall below a 2.0 GPA.

A maximum of 60 credit hours may be transferred from institutions outside the North Carolina Community College System toward completing an associate degree, or diploma program. The final quarter must be completed at Pitt Technical Institute.

WITHDRAWALS FROM THE INSTITUTE

UNOFFICIAL WITHDRAWAL

An unofficial withdrawal from one or more classes is given to students who leave school or stop attending classes without qualifying for or following procedures for official withdrawal status. This includes students who are dropped after five consecutive absences and not reinstated and those never attending classes after registration. Unofficial withdrawals count as hours attempted with quality points of 0 in determining the grade point average. Students who leave school without officially withdrawing will lower their GPA and jeopardize future readmission to the Institute. For more information see the Student Counselors or the Registrar.

NOTE VETERANS

ANY COURSE FROM WHICH YOU UNOFFICIALLY WITHDRAW OR ON WHICH YOU RECEIVE AN I (INCOMPLETE) MAY NOT BE RETAKEN FOR PAY PURPOSES UNDER TITLE 38, U.S. CODE AS AMENDED BY PUBLIC LAW 93-508.

OFFICIAL WITHDRAWAL

An official withdrawal from one or more courses or from the institution is permissible when circumstances beyond the control of the student prevent him from completing courses and does not count as hours attempted. Official withdrawals may be secured for the following reasons:

1) Verification of personal illness
2) Illness or death in immediate family
3) Change in employment status
4) Relocation to another area
5) An official withdrawal may be allowed at the discretion of the Dean of Students for reasons other than the previous reasons, if in his judgment such a withdrawal is warranted.

Students qualifying for official withdrawal status should, use these procedures in applying for one:

1) Present a verification that the student qualifies for official withdrawal status to the registrar to obtain a withdrawal form.
2) Have advisor sign it;
3) Have instructor(s) sign it;
4) Have registrar sign it;
5) Have business office sign it.

Any student who officially withdraws from all courses and from the Institute before the end of the quarter will receive no grades. Only the course(s) for which he registered and the date of the official withdrawal will appear on the transcript. For more information see the Student Counselors or the Registrar.

ACADEMIC STANDING

The policy governing academic progress at Pitt Technical Institute is intended to assist the student to successfully complete a chosen program of study. Since a 2.00 quality point average is required for graduation in all programs, a student is expected to strive to reach this average in order to be considered in good academic standing. Any second year student who falls below a 1.50 grade point average, and any first year student who falls below a 1.00 grade point average will be required to have periodic counseling. Students not attaining this required grade point average in any quarter will be placed on academic probation. Students will have one quarter on academic probation to earn the required grade point average before they are terminated from the institute or financial aid. Federal regulations require that a student receiving federal financial aid of any kind (BEOG, SEOG, CWSP, NDSL, GUARANTEED STUDENT LOAN, NURSING STUDENT LOAN AND NURSING SCHOLARSHIP) be making satisfactory progress. Those students whose cumulative grade point average is less than 1.00 after any quarter of academic probation will not be classified as "making satisfactory academic progress," and all federal financial aid will be terminated. Special provisions may be made for students enrolled in Special Services and students receiving incompletes in developmental courses.

TRANSCRIPTS

Student transcripts are available under the provisions of The Family Educational Rights and Privacy Act of 1974 (P.L. 93-380). Under this Act, written consent from the student is required before the student records can be released to anyone. Additional information may be obtained from the Registrar's Office.

The first two (2) transcripts are free, but subsequent transcripts will carry a charge of $1.00 each.

DROPPING AND/OR ADDING COURSES

In some instances it is necessary for students to make adjustments in their schedule. To insure that the student will receive proper credit, a Drop-Add Form should be completed and returned to the Registrar's Office. The Institute's calendar, published in the **Student Handbook** and the Catalog, indicates the last day to drop and/or add a course. This date is subject to change with proper notification.

Students should pay particular attention to procedural directions as no course is officially dropped or added until the required procedure is completed:

The following steps should be followed:

(1) Obtain drop-add form from the Registrar's Office;
(2) Have instructor(s) involved initial it;
(3) Have advisor sign it;
(4) Have Registrar sign it;
(5) Have it validated by the Accounting Office;

CHANGE OF NAME AND/OR ADDRESS

Students are responsible for notifying the Registrar's Office of all name and address changes. This is necessary to keep all records in proper order.

STUDENT SERVICES

COUNSELING SERVICES

Student Services include counseling services provided by full-time trained personnel. The counseling services are available to all students. Pre-admission counseling is available to assist new students in understanding the various programs and curricula offered by Pitt Technical Institute. Information concerning transfer credit also available.

Every student is assigned to a faculty advisor who serves to assist the student with specific course planning and registration.

PLACEMENT SERVICE

Pitt Technical Institute provides a job placement service for all students who successfully complete their course of study. The Placement Office maintains a current file of prospective employers and provides these employers with personal data sheets on students meeting the job demands. Representatives from business and industry from a wide geographical area come to the campus each spring to interview prospective graduates.

FOOD SERVICE

The student lounge is conveniently located on campus and is equipped with both vending machines and over-the-counter lunch service.

HEALTH SERVICES

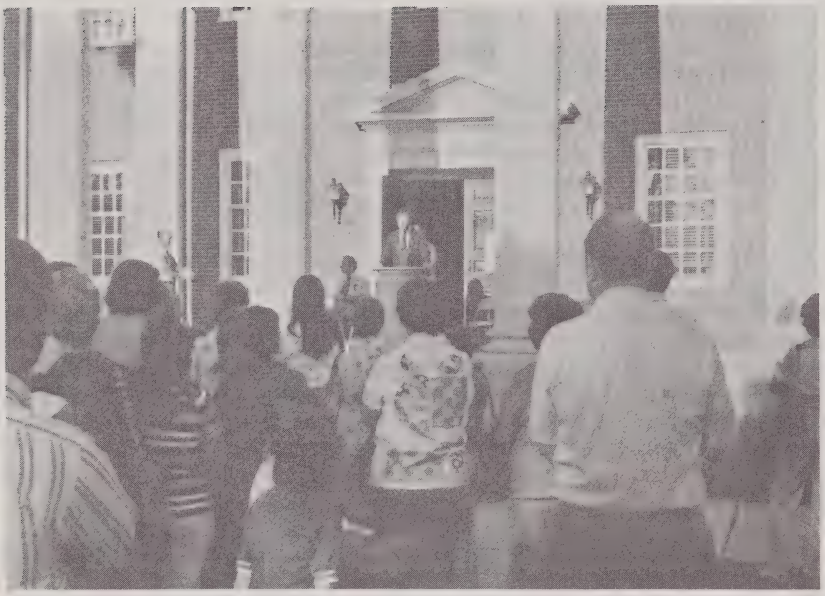
As a community school, Pitt Technical Institute maintains no health facilities other than first aid supplies, which are located in the office of the Dean of Students and in laboratories and shops. The responsibility for medical services rests with the student and his parents or guardians. Emergency facilities are available at Pitt Memorial Hospital. An entering student is required to submit a health questionnaire. Student accident insurance is available at a cost of $4.00 per year.

STUDENT COUNCIL ASSOCIATION

The Student Council serves to promote interest in student affairs on and off campus. Recommendations from the Council may be made directly to the administration. A faculty advisor to the Student Council serves as an intermediary for relaying to the administration other worthwhile student suggestions.

SOCIAL LIFE

A series of events is provided throughout the year for the social, cultural and educational enrichment of the students. Any student who pays the student activity fee is eligible to attend activities sponsored by the Institute.



INTRAMURAL SPORTS

The Institute provides its students an opportunity to participate in wholesome recreational activities.

IDENTIFICATION CARDS

All day-time students must secure an ID card from the counselor's office during the second or third week of each quarter. This card will admit students to social, cultural, and educational events that are sponsored by the Institute.

GAMMA BETA PHI

Gamma Beta Phi is an honor society that was chartered in 1975. Membership is based upon a GPA of 3.0 and comes under the supervision of the SCA.

SCHOOL PUBLICATIONS

Pitt Technical Institute publishes the following periodicals:

A. Student Handbook
B. Institute Catalog
C. Program Brochures

D. Counselor and New Student Information Sheet
E. Co-Op Newsletter
F. Tech Talk

GRADUATION EXERCISES

Graduation exercises are held each year in late May and late August. No charge is made for the degree, diploma, or certificate.

CLASS RINGS

All orders for class rings will be made through the Office of Student Services. Notices will be posted relevant to dates for measurements. Students are urged to be prompt when making these orders.

GUIDED TOURS

Many groups visit Pitt Technical Institute during the year for the purpose of inspecting the facilities and opportunities available in trade and technical education.

Groups are assembled in the lobby where they are greeted by the Dean of Students. Larger groups are divided into smaller groups and then they are taken on a guided tour of the Institute. All programs are explained to groups as the tour progresses. No department is excluded. In addition to seeing classes and shops, the groups are also taken into the library and the learning center.

Generally a tour will last approximtely 45 minutes.

FINANCIAL ASSISTANCE PROGRAMS

All recipients of Financial Aid must be making satisfactory academic progress and be in good standing according to the academic policy of the institute.

THE NATIONAL DIRECT STUDENT LOAN PROGRAM

PURPOSE

To identify and educate more of the talent in our nation.

ELIGIBILITY

The borrower must be in need of the amount of his loan to pursue his course of study in the institution. The borrower must be capable, in the institution's opinion, of maintaining good standing in his course. The borrower must be enrolled, or accepted for enrollment, as a student in the institution. The borrower must be carrying at least one-half the normal full-time academic load as determined by the institution.

EXIT INTERVIEWS

At any time a student who has received a National Direct Student Loan terminates his education at Pitt Technical Institute, he must contact the Dean of Fiscal Affairs for an exit interview where arrangements will be made for repayment of the loan.

THE SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT PROGRAM

PURPOSE

To make post-high school education available to high school graduates of exceptional financial need who, without the grants, would be unable to continue their education.

ELIGIBILITY

Any student in extreme financial need who has been accepted for admission or who is already enrolled and is in good standing as a full-time student.

ADMINISTRATION

The institution is responsible for selecting eligible students and taking care of any matters pertaining to the actual day-by-day operation of the program.

BASIC EDUCATIONAL OPPORTUNITY GRANT

PURPOSE

The Basic Educational Opportunity Grant Program is a Federal Aid Program designed to provide financial assistance to those who need it to attend post-secondary educational institutions. This grant is available to students who began their post-secondary education after April 1, 1973. Students may contact the Financial Aid Officer concerning eligibility.

NORTH CAROLINA STUDENT INCENTIVE GRANT PROGRAM

Legal residents of North Carolina accepted for enrollment or enrolled full time in good standing may apply for Student Incentive Grants to help pay their educational expenses. Students must demonstrate "substantial financial need" as determined through the need analysis system of the College Scholarship Service. The amount of each grant will be based on the individual student's demonstrated financial need in relation to resources and cost of education but may not exceed $1,500 per academic year.

Application forms may be obtained from the Financial Aid office or directly from College Foundation. After the student completes the application, it must be certified by the Institutional Financial Aid Officer and forwarded to the Foundation. Requests are processed by date the properly completed application forms and need analysis reports are received. Applications received after March 15 will be processed if funds are available.

Special Note: All students applying for North Carolina Incentive Grants must first apply for Basic Educational Opportunity Grants. Both Incentive Grant and Basic Grant applications are available from financial aid offices at eligible North Carolina postsecondary educational institutions.

COLLEGE WORK-STUDY, VOCATIONAL WORK-STUDY, PROGRAMS OF EMPLOYMENT

Students, particularly those from the low-income families, who need a job to

help pay for school expenses are potentially eligible for employment by Pitt Technical Institute under federally supported work-study programs.

Students may work up to 15 hours per week while attending classes full-time.

To work under these programs, students must be enrolled and be in good standing, or be accepted for enrollment as a full-time student. The student's eligibility depends upon his need for employment to defray school expenses, with preference given to applicants from low-income families. Payment for work performed is made on the basis of a time sheet certified by the signature of the person supervising the student's work.

COLLEGE FOUNDATION LOAN FUND

Through the College Foundation, Incorporated, a student who has been approved for admission may borrow up to $2,500 per year as provided by the Higher Education Act of 1965, Section IV-B. The Financial Aid Officer gives institutional approval and awards the loan through the Institute's Accounting Office. Application must be made prior to July 1 of the school year.

Repayment shall begin on the first of the tenth month after the student ceases to carry a full-time work load. Repayment may not exceed 10 years. The borrower may accelerate repayment without penalty.

DORIS HALL PHELPS MEMORIAL LOAN FUND

Eligible students may borrow money from this fund to pay tuition charges only. There will be a 5% interest charge assessed on any money loaned. These loans are for short terms not to exceed two quarters. A co-signer will be required before any of these funds can be loaned.

This fund was established in memory of Mrs. Doris Hall Phelps who for several years was a loyal and devoted employee of Pitt Technical Institute in the Library Resource Center.

LAW ENFORCEMENT ASSISTANCE: GRANTS AND LOANS

In-service students in the Police Science Technology curriculum may be eligible for either outright grants or loans to cover the cost of their training and other allied costs.

SCHOLARSHIPS

Two scholarships of $200 each are granted qualified students. These scholarships are provided by Prep-Shirt, Incorporated, a Greenville industry.

NURSING LOANS AND SCHOLARSHIPS

Students enrolled in the Career Option Nursing Program are eligible to apply for a loan. Scholarships to certain nursing students will be awarded by the Financial Aid Committee. These scholarships will be awarded based on the student's aptitude and needs.

BURROUGHS—WELLCOME LOAN FUND

Pitt Technical Institute administers a Loan Fund which is supported by the Burroughs-Wellcome Company. Eligible students may secure short-term loans

at no interest. Money obtained through this loan fund must be used for direct educational expenses which is limited to the cost of tuition, insurance fees, supplies, and books. These loans must be repaid before the end of the current quarter. All loans must be secured by a promissory note with the signature of the borrower and the signature of one other person as surety. Responsibility for recollection of these loans rests with the Student Financial Aid Office.

VOCATIONAL REHABILITATION

Any physically handicapped student may be eligible for scholarship assistance under the provision of Public Law 565. Applications for this scholarship aid should be processed through the District Vocational Rehabilitation Office nearest the applicant. Inquiries may be directed to any Rehabilitation Office.

FINCH VOCATIONAL EDUCATION SCHOLARSHIP

This scholarship is furnished by Mr. and Mrs. Willard Finch in the amount of $100 per year to cover the cost of tuition only. This scholarship is renewable for the second year if the recipient has successfully passed his first year's work.

EFFECTIVE WITH THE SCHOOL YEAR 1976-77, ALL FINANCIAL AID APPLICATIONS MUST BE PROCESSED BY THE COLLEGE SCHOLARSHIP SERVICE. Applications are available from any school counselor or the financial aid office at Pitt Technical Institute.

Processed applications should be received by Pitt Technical Institute at least 45 days prior to the beginning of the quarter in which assistance is desired. Applications received later will be processed on first-come first-served basis as funds and time permit.

VETERANS BENEFITS

The Veterans Benefits Law provides financial assistance to any veteran who is eligible for benefits under the G.I. Bill. When veterans enroll in an approved curriculum, they must pursue that exact curriculum listed in the school catalog; they must provide the Veterans Administration with exact records of attendance and must maintain satisfactory academic progress, attendance, and conduct for continuing eligibility for payments.

V.A. payments for veterans in a technical program are based on credit hours per quarter as indicated below:

Technical Programs

12 or more	Full Time
9-11	3/4 Time
6-8	1/2 Time

V.A. payments for veterans in a vocational program are based on contact (hours in class per week) and credit hours per quarter as indicated below.

Vocational Programs

22 clock hours and 12 credit hours	Full Time
16-21 clock hours and 9-11 credit hours	3/4 Time
11-15 clock hours and 6-8 credit hours	1/2 Time

Children of Veterans

The Veterans Administration offers educational assistance up to 36 months, for sons and daughters of certain deceased or totally and permanently disabled veterans. Recipients are generally between 18 and 23 years of age. An allowance up to $311 per month is made to students under the program. For further information, write the Veterans Administration in Winston-Salem or contact the local Veterans Affairs Office.

Standards of Progress Requirements for Veterans

Following herewith is the revised standards of progress adopted by Pitt Technical Institute to become effective with the spring quarter which began March 6, 1978.

Beginning with the spring quarter, the following standards of progress will be in effect for veterans enrolled at Pitt Technical Institute and receiving benefits. The veteran student must have achieved the grade point average listed on the following scale except that in each case, he will be given a one quarter probationary period before termination.

Credit Hours	**AAS Degree**	Grade Point Average	Credit Hours	**Certificate or Diploma**	Grade Point Average
0-25		1.00	0-15		1.00
26-40		1.25	16-25		1.25
41-55		1.50	26-35		1.50
56-70		1.75	36-50		1.75
71 or more		2.00	51-70		2.00

SOCIAL SECURITY

Sons and daughters of retired, disabled, or deceased workers are eligible for social security benefits up to the age of twenty-two while they are in college, if they are unmarried full-time students.

Payments of these benefits is not automatic. Students who are not yet eighteen and want to continue receiving monthly benefits or if their benefits were stopped because they have reached the age of eighteen, they should notify the Social Security representative for further information.

TRAFFIC REGULATIONS

All automobiles operated on the campus by day students and Institute personnel must be registered with the Business Office. Parking permits are issued for each registered vehicle and must be displayed on the rear bumper, left side. The operators of automobiles on the campus are subject to specific parking and traffic regulations. The Institute reserves the right to withdraw the privilege of operating an automobile on the campus for failure to abide by the regulations. Parking permits are issued free of charge.

Because most of the students commute to Pitt Technical Institute, it is necessary that the following traffic and parking regulations be enforced:

1. Stop at all Stop Signs. Do not park in areas marked "No Parking."

2. Speed limit on campus - 15 miles per hour.

3. Staff and Faculty - Park in areas marked "Area A" by signs located on the campus. They must display a parking sticker reading "Area A" parking.

4. Students - Park only in area marked "Area B" by signs placed throughout the campus. All students vehicles must display a parking sticker reading "Area B" parking.

5. Two wheeled vehicles will park only in the area designated by signs as "Two Wheeled Vehicles Only."

6. Only visitors are to park in visitors' parking area.

7. Staff and student parking in areas designated for the handicapped will be issued a parking citation unless vehicle carries appropriate sticker.

INCLEMENT WEATHER

The president will make the decision as to whether or not classes will be held during periods of inclement weather. Announcements will be made on local radio and television stations.

STUDENT CONDUCT

It is expected that at all times the student will conduct himself as any responsible adult in a public place. Destruction of school property, stealing, cheating, gambling, use of profane language, engaging in personal combat,

possession of dangerous weapons, and possession or use of alcoholic beverages or narcotics in or on school property cannot be tolerated. Any violation of the above regulations will result in expulsion from the Institute.

DISMISSAL

A student may be dismissed from a class or from the Institute for conduct or personal habits which are not in the best interest of the students and of the Institute.

Information on dismissal and reinstatement procedure may be obtained from the Office of the Dean of Students.

FIRE DRILLS

Fire drills will be held once a quarter. The fire alarm consists of a pulsating, repeated sounding of a "bull horn." Personnel will exit at the outside door closest to where they are at the time the alarm is sounded and proceed in an orderly manner to a safe distance from the building. The all clear signal is a long sounding of the school bell system.

SECURITY GUARD

The security officer located on the campus is for your protection and the protection of your property while on campus. He also is here to protect school property.

An additional duty is the enforcement of a few basic traffic regulations that are necessary to insure a free flow of traffic through the campus and safe movement of pedestrians on campus.

STUDENT RIGHTS, FREEDOMS, AND RESPONSIBILITIES

Copies of the Rights and Freedoms of Students may be obtained from the Student Personnel Office.

DUE PROCESS

Students who question the fairness of disciplinary action taken against them are entitled to due process by submitting a written notice of appeal. The appeal is heard by the Hearing Committee (Judicial Review Board), which is composed of two faculty members appointed by the president of the Institute and the president and vice-president of the SCA. The decision of the committee is final, subject only to the student's right of appeal to the president of the Institute or ultimately to the Board of Trustees. Additional information may be obtained from the Dean of Students.

RESPONSIBILITY

Students are responsible for the proper completion of their academic program, for familiarity with all requirements of the Pitt Technical Institute Catalog under which they intend to graduate, for maintaining the grade average required and at all times knowing their academic standing, and for meeting all other degree requirements. Their advisors will counsel them but the final responsibility remains that of the students.

A student is required to have knowledge of and observe all regulations per-

taining to campus life and student deportment. They are responsible for maintaining communications with Pitt Technical Institute by keeping on file with the Registrar's office at all times their current address, including zip code and telephone number.

SPECIAL SERVICES

LIBRARY RESOURCE CENTER

The Library Resource Center (LRC) provides materials and services to support and enrich the educational programs of Pitt Technical Institute. These materials and services are available to students, faculty, and staff of the Institute, and to residents of Pitt County.

The LRC materials collections includes books, magazines, newspapers, pamphlets, maps, government publications, and other printed materials, and an extensive collection of audiovisual materials. Audiovisual materials in the LRC collection include films, filmstrips, film loops, transparencies, slides, tapes, and records. Microfilm copies of back issues of selected magazines and newspapers and certain historical records of the Pitt County area are also available for use in the LRC. Equipment is provided for the use of audiovisual and microfilmed materials and for the production and duplication of certain instructional materials.

A staff of professional librarians/media specialists and library/media technicians and assistants provide instruction and assistance in the use of these materials and equipment at all hours the LRC is open.

The LRC is open Monday through Thursday from 7:45 a.m. to 9:30 p.m. and on Friday from 7:45 a.m. to 5:00 p.m. (closed Saturdays, Sundays, and Holidays). Located on the third floor of the Humber Building (easily reached by elevator), the LRC is arranged and furnished to provide a pleasant atmosphere conducive to study and to leisure time use of the variety of materials and services available.

THE LEARNING CENTER

The Learning Center at Pitt Technical Institute is designed to provide opportunities for individualized study to both curriculum students and for other's for the following purposes: preparation for taking the high school equivalency test; preparation for entrance into a curriculum program; preparation for college entrance; upgrading in specific areas; and study of subjects for personal satisfaction.

The Learning Center is open Monday through Thursday from 8:00 a.m. to 5:00 p.m. and 6:00 p.m. to 10:00 p.m. On Fridays the Learning Center is open from 8:00 a.m. to 5:00 p.m.

BOOKSTORE

Pitt Technical Institute operates a college bookstore to provide service for its students and faculty. All textbooks, instruments, and supplies required by the academic program are available in the bookstore at competitive prices. Limited numbers of used textbooks are available. In addition to those items required by the academic program, the bookstore sells most of the supplies normally found in a college bookstore. The bookstore is operated under the direction of the Dean of Fiscal Affairs. Hours during which the bookstore is open for business are posted on the door to the bookstore.

TECHNICAL EDUCATION

AGRICULTURAL BUSINESS TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

	Course Title				
	FIRST QUARTER		**C**	**L**	**CH**
*	ENG 101	Grammar	3	0	3
*	MAT 100	Review of Fundamental Mathematics	5	0	5
	AGR 125	Animal Science	5	2	6
		Agricultural Elective	3	2	4
			16	4	18
	SECOND QUARTER				
	ENG 102	Composition	3	0	3
	AGR 185	Soil Science	5	2	6
	BUS 120	Principles of Accounting	5	0	5
		Business Elective	3	0	3
			16	2	17
	THIRD QUARTER				
	ENG 204	Oral Communications	3	0	3
	EDP 104	Introduction to Data Processing	3	0	3
	AGR 170	Plant Science	5	2	6
	CHM 101	Chemistry	4	2	5
			15	4	17
	FOURTH QUARTER				
	ENG 103	Report Writing	3	0	3
	AGR 278	Weed Identification and Control	3	2	4
	BUS 232	Sales Development	3	0	3
	AGR 228	Plant and Animal Diseases	3	2	4
	BUS 102	Beginning Typewriting	2	3	3
		OR	2	3	3
	BUS 103	Intermediate Typewriting	14	7	17
	FIFTH QUARTER				
	AGR 119	Techniques of Welding	2	3	3
	AGR 204	Agricultural Economics & Farm Records	3	2	4
	ENV 225	Agricultural Pollution	3	2	4
	AGR 205	Agricultural Marketing	3	2	4
**		Social Science Elective	3	0	3
			14	9	18
	SIXTH QUARTER				
	AGR 203	Pesticide & Fertilizer Application	3	2	4
**	AGR 247	Pesticides & Their Use in Home and Community	3	2	4
	BUS 110	Office Machines	2	2	3
	AGR 245	Crop Insects	3	2	4
		Social Science Elective	3	0	3
			14	8	18

TOTAL QUARTER HOURS IN COURSES 105

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 099, MAT 100R

The Agricultural Business Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

AGRICULTURAL:
AGR 155, 218, 272, 273, 279, 290
ENGLISH:
ENG 105
ENVIRONMENTAL:
ENV 101, 103, 104
SOCIAL SCIENCE:
AGR 296, ECO 108, PSY 101, 102, SOC 101, 102, SSC 101
BUSINESS:
BUS 100, 103, 115, 116, 121, 123, 154, 229, 235, 239
**AGR 218 may be substituted for AGR 205.
**AGR 273 may be substituted for AGR 247.

AGRICULTURAL CHEMICALS TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
*ENG	101	Grammar	3	0	3
*MAT	100	Review of Fundamental Mathematics	5	0	5
AGR	125	Animal Science	5	2	6
		Agricultural Elective	3	2	4
			16	4	18
SECOND QUARTER					
ENG	102	Composition	3	0	3
AGR	185	Soil Science	5	2	6
BUS	120	Principles of Accounting	5	0	5
CHM	102	Inorganic Chemistry	4	2	5
			17	4	19
THIRD QUARTER					
ENG	204	Oral Communications	3	0	3
CHM	103	Inorganic Chemistry	4	2	5
EDP	104	Introduction to Data Processing	3	0	3
AGR	170	Plant Science	5	2	6
BUS	102	Beginning Typewriting	2	3	3
		OR			
BUS	103	Intermediate Typewriting	2	3	3
			17	7	20

FOURTH QUARTER					
ENG	103	Report Writing	3	0	3
AGR	278	Weed Identification & Control	3	2	4
BUS	232	Sales Development	3	0	3
AGR	228	Plant and Animal Diseases	3	2	4
CHM	106	Organic Chemistry	4	2	5
			16	6	19
FIFTH QUARTER					
AGR	119	Techniques of Welding	2	3	3
AGR	204	Agricultural Economics Farm Records	3	2	4
ENV	225	Agricultural Pollution	3	2	4
**AGR	205	Agricultural Marketing	3	2	4
		Social Science Elective	3	0	3
			14	9	18
SIXTH QUARTER					
AGR	203	Pesticide & Fertilizer Applications	3	2	4
**AGR	247	Pesticides & Their Use In Home and Community	2	2	3
BUS	110	Office Machines	2	2	3
AGR	245	Crop Insects	3	2	4
		Social Science Elective	3	0	3
			13	8	17

TOTAL QUARTER HOURS IN COURSES 110

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following lists:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 099, MAT 100R

The Agricultural Chemicals Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

AGRICULTURAL:
AGR 155, 218, 272, 273, 279, 290

ENGLISH:
ENG 105

ENVIRONMENTAL:
ENV 101, 103, 104

SOCIAL SCIENCE:
AGR 296, PSY 101, 102, SOC 101, 102, SSC 101, ECO 108

BUSINESS:
BUS 100, 103, 115, 116, 121, 123, 154, 229, 235, 239

**AGR 218 may be substituted for AGR 205.
**AGR 273 may be substituted for AGR 247.

VETERANS FARM COOPERATIVE PROGRAM
AGRICULTURAL SCIENCE AND MECHANIZATION
(TECHNICAL SPECIALTY)

Course Title		C	L	CH
FIRST QUARTER				
AGR 215	Farm Machinery, Repair and Maintenance	3	2	4
AGR 285	Soil Fertility	3	2	4
		6	4	8
SECOND QUARTER				
AGR 205	Agricultural Marketing	3	2	4
AGR 127	Animal Nutrition	3	2	4
		6	4	8
THIRD QUARTER				
AGR 119	Techniques of Welding	2	3	3
AGR 279	Farm Forestry	3	2	4
		5	5	7
FOURTH QUARTER				
AGR 222	Farm Electrification	3	2	4
AGR 296	Agricultural Programs and Agencies	3	0	3
AGR 143	New Sources of Farm Income	2	0	2
		8	2	9
FIFTH QUARTER				
AGR 228	Plant and Animal Diseases	3	2	4
AGR 278	Weed Identification and Control	3	2	4
		6	4	8
SIXTH QUARTER				
AGR 204	Agricultural Economics and Farm Records	3	2	4
AGR 223	Livestock Production	3	2	4
		6	4	8
SEVENTH QUARTER				
AGR 218	Agricultural Mechanization	3	2	4
AGR 105	Pasture & Forage Crops	3	2	4
		6	4	8
EIGHTH QUARTER				
AGR 245	Crop Insects	3	2	4
AGR 149	Introduction to Plant Science and Horticulture	3	2	4
		6	4	8
NINTH QUARTER				
AGR 201	Agricultural Chemicals (Pesticides)	3	2	4
AGR 187	Fertilizers and Lime	3	2	4
		6	4	8

TENTH QUARTER					
AGR	136	Agricultural Mathematics	5	0	5
AGR	290	Soil and Water Conservation	3	2	4
			8	2	9
ELEVENTH QUARTER					
AGR	128	Farm and Home Construction	2	3	3
AGR	121	Crop Production	3	2	4
			5	5	7
TWELFTH QUARTER					
AGR	272	Tobacco Production	3	2	4
AGR	254	Plant Propagation	3	2	4
			6	4	8

TOTAL QUARTER HOURS IN COURSES 96

Upon approval of the department chairperson, the Veterans Farm Co-op student may make course substitutions on an hour-for-hour basis from the Agricultural Science courses listed below.

To receive an Associate of Applied Science Degree, the student must complete 18 credit hours from the following General Education courses and three Agricultural Science courses.

General Education Courses:

Course Title			**C**	**L**	**CH**
ENG	101	Grammar	3	0	3
ENG	102	Composition	3	0	3
ENG	103	Report Writing	3	0	3
ENG	204	Oral Communications	3	0	3
PSY	102	General Psychology	3	0	3
SOC	102	Principles of Sociology	3	0	3
SSC	101	Introduction to Social Sciences	3	0	3
			21	0	21

Agricultural Science Courses:

Course Title					
AGR	135	Agricultural Law	3	0	3
AGR	150	General Horticulture	3	2	4
AGR	155	Introduction to Food Science	3	2	4
AGR	203	Pesticide and Fertilizer Application	3	2	4
AGR	273	Corn, Peanut and Soybean Production	3	2	4
AGR	297	Agricultural Policy and Programs	3	2	4
			18	10	23

TOTAL QUARTER HOURS IN COURSES FOR ASSOCIATE DEGREE 125-126

AGRICULTURAL SCIENCE
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
AGR	215	Farm Machinery, Repair and Maintenance	3	2	4
AGR	285	Soil Fertility	3	2	4
			6	4	8
SECOND QUARTER					
AGR	205	Agricultural Marketing	3	2	4
AGR	127	Animal Nutrition	3	2	4
			6	4	8
THIRD QUARTER					
AGR	119	Techniques of Welding	2	3	3
AGR	279	Farm Forestry	3	2	4
			5	5	7
FOURTH QUARTER					
AGR	222	Farm Electrification	3	2	4
AGR	296	Agricultural Programs and Agencies	3	0	3
AGR	143	New Sources of Farm Income	2	0	2
			8	2	9
FIFTH QUARTER					
AGR	228	Plant and Animal Diseases	3	2	4
AGR	278	Weed Identification and Control	3	2	4
			6	4	8
SIXTH QUARTER					
AGR	204	Agricultural Economics and Farm Records	3	2	4
AGR	223	Livestock Production	3	2	4
			6	4	8
SEVENTH QUARTER					
AGR	218	Agricultural Mechanization	3	2	4
AGR	105	Pasture & Forage Crops	3	2	4
			6	4	8
EIGHTH QUARTER					
AGR	245	Crop Insects	3	2	4
AGR	149	Introduction to Plant Science and Horticulture	3	2	4
			6	4	8
NINTH QUARTER					
AGR	201	Agricultural Chemicals (Pesticides)	3	2	4
AGR	187	Fertilizers and Lime	3	2	4
			6	4	8

TENTH QUARTER					
AGR	136	Agricultural Mathematics	5	0	5
AGR	290	Soil and Water Conservation	3	2	4
			8	2	9
ELEVENTH QUARTER					
AGR	128	Farm and Home Construction	2	3	3
AGR	121	Crop Production	3	2	4
			5	5	7
TWELFTH QUARTER					
AGR	272	Tobacco Production	3	2	4
AGR	254	Plant Propagation	3	2	4
			6	4	8

TOTAL QUARTER HOURS IN AGRICULTURAL COURSES 96

Required English Courses:					
ENG	101	Grammar	3	0	3
ENG	102	Composition	3	0	3
ENG	103	Report Writing	3	0	3
ENG	204	Oral Communications	3	0	3

TOTAL QUARTER HOURS IN ENGLISH COURSES 12

Required Electives:

Two Social Science Electives from the following:

PSY	102	General Psychology	3	0	3
SOC	102	Principles of Sociology	3	0	3
SSC	101	Introduction to Social Science	3	0	3

TOTAL QUARTER HOURS IN SOCIAL SCIENCE COURSES 6

TOTAL QUARTER HOURS IN COURSES FOR ASSOCIATE DEGREE 114

Upon approval of the department chairperson, the Agricultural Science student may make course substitutions on an hour-for-hour basis from the Agricultural Science courses listed below.

RECOMMENDED AGRICULTURAL SCIENCE ELECTIVES:
AGR 135, 150, 155, 203, 273, 297

AIR AND WATER RESOURCES TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
ENV	101	Environmental Orientation	4	2	5
ENV	104	Environmental Biology	3	3	4
* MAT	100	Review of Fundamental Mathematics	5	0	5
* ENG	101	English Grammar	3	0	3
			15	5	17

SECOND QUARTER

ENV	102	Microbiology	3	3	4
CHM	102	Inorganic Chemistry	4	2	5
MAT	101	Algebra I	5	0	5
ENG	102	English Composition	3	0	3
			15	5	17

THIRD QUARTER

ENV	103	Water Resources Management	4	2	5
CHM	103	Inorganic Chemistry	4	2	5
PHY	105	Environmental Physics	3	2	4
MAT	103	Algebra II	5	0	5
			16	6	19

FOURTH QUARTER

ENV	112	Air Resources Management	3	2	4
ENV	204	Water Sampling & Analysis	2	4	4
ENV	217	Waste Water Treatment	4	2	5
PHY	106	Environmental Physics	3	2	4
		Social Science Elective	3	0	3
			15	10	20

FIFTH QUARTER

ENV	205	Waste Water Sampling & Analysis	2	4	4
ENV	226	Atmospheric Air Sampling & Analysis	2	6	5
ENV	204	Oral Communications	3	0	3
		Elective	3	0	3
			10	10	15

SIXTH QUARTER

ENV	206	Industrial Waste Water & Field Sampling and Analysis	3	3	4
ENV	212	Air Pollution Sources and Control	3	3	4
ENV	236	Air Pollution Source Sampling and Analysis	2	6	5
ENG	103	Report Writing	3	0	3
	**	Elective	3	0	3
			14	12	19

TOTAL QUARTER HOURS IN COURSES 107

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A
MAT 099, MAT 100R

The Air and Water Resources Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:
AGR 185, 247, 290, ARC 202, CHM 106, CIV, 101, DFT 101, ECO 108, EDP 114, ENG 105, ISC 102, MAT 102, 120, PHO 116, PHY 102, PSY 102, SOC 102, SSC 101

**Environmental Projects courses/Cooperative Education courses may be used as electives.

ENV 220A B,C, ENV 220A,B,C, ENV 240A,B,C

(Cooperative Education does not qualify for veterans' benefits.)

To meet the requirements of one of the electives, completion of one of the following certification tests is required.

After completion of three quarters, each student will select one test from these three test areas:

NCWPCA, Grade 1, Waste Water Treatment Plant Operator
NCWWOA, Grade C, Water Treatment Plant Operator
NC State Board; Sanitation Technician
Environmental Eng. Tech I

Upon completion of six quarters, each student who is certified for graduation is encouraged to take one test from these three test areas:

NCWPCA, Grade 2, Waste Water Treatment Plant Operator
NCWWOA, Grade B, Water Treatment Plant Operator
NC State Board, Laboratory Technician
Environmental Eng. Tech II
Chemical Analyst I

Further, each student will be encourged to apply for Physical Science Technician Air (GS-4) rating (without a required test) for placement on the U.S. Civil roster, which is necessary before applications can be made for federal employment.

ARCHITECTURAL DRAFTING TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
CIV	105	Architectural Materials & Methods I	3	3	4
ARC	106	Architectural Drafting	2	6	4
*ENG	101	Grammar	3	0	3
*MAT	101	Algebra I	5	0	5
		Social Science Elective	3	0	3
			16	9	19

SECOND QUARTER

ARC	107	Architectural Drafting	2	6	4
AHR	106	Architectural Mechanical Equipment	3	3	4
ENG	102	Composition	3	0	3
MAT	102	Trigonometry	5	0	5
PHY	101	Technical Physics	4	2	5
			17	11	21

THIRD QUARTER

ARC	108	Architectural Drafting	0	9	3
DFT	236	Construction Estimating & Field Inspecting	3	3	4
ENG	204	Oral Communications	3	0	3
MAT	103	Algebra II	5	0	5
PHY	102	Technical Physics	4	2	5
			15	14	20

FOURTH QUARTER

ARC	201	Architectural Design I	3	9	6
CIV	106	Architectural Materials and Methods II	3	3	4
ARC	202	Environmental Design	2	3	3
			8	15	13

In lieu of the fourth quarter courses, students, with department chairperson's approval, may co-op full time in a related area of employment. (Cooperative Education courses do not qualify for veterans benefits.)

FIFTH QUARTER

CIV	114	Statics	5	0	5
CIV	101	Surveying	2	6	4
ARC	220	Architectural Drafting	2	9	5
PHY	103	Technical Physics	4	2	5
ENG	103	Report Writing	3	0	3
			16	17	22

SIXTH QUARTER

CIV	216	Strength of Materials	3	2	4
ARC	221	Architectural Drafting	2	9	5
DFT	235	Codes, Specifications, & Contracts	3	3	4
ARC	233	Office Practice	2	0	2
		Social Science Elective	3	0	3
			13	14	18

SEVENTH QUARTER

CIV	221	Reinforced Concrete	3	2	4
ARC	222	Architectural Drafting	2	9	5
DFT	230	Structural Drafting	2	6	4
			7	17	13

TOTAL QUARTER HOURS IN COURSES 126

*In the event students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses, from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 101-A, 102-A, MAT 100R

The Architectural Drafting Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's Chairperson.

RECOMMENDED ELECTIVES:

ENGLISH:
ENG 105
PSYCHOLOGY:
PSY 101, 102
SOCIOLOGY:
SOC 101, 102
SOCIAL SCIENCE:
SSC 101

ACCOUNTING
SUGGESTED CURRICULUM BY QUARTERS

	Course Title				
FIRST QUARTER			**C**	**L**	**CH**
* ENG	101	Grammar	3	0	3
BUS	101	Introduction to Business	3	0	3
ECO	102	Economics	3	0	3
* MAT	110	Business Mathematics	5	0	5
BUS	120	Principles of Accounting	5	0	5
			19	0	19
SECOND QUARTER					
ENG	102	Composition	3	0	3
ECO	104	Economics	3	0	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	5	0	5
BUS	102	Beginning Typewriting	2	3	3
			16	3	17
THIRD QUARTER					
ENG	204	Oral Communications	3	0	3
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	5	0	5
EDP	115	FORTRAN	2	2	3
BUS	110	Office Machines	2	2	3
			15	4	17
FOURTH QUARTER					
ENG	103	Report Writing	3	0	3
BUS	222	Intermediate Accounting	5	0	5
EDP	223	Introduction to RPG II	2	4	4
BUS	235	Business Management	3	0	3
		**Elective (s)	3	0	3
			16	4	18
FIFTH QUARTER					
ENG	206	Business Communication	3	0	3
BUS	223	Intermediate Accounting	5	0	5
BUS	225	Cost Accounting	3	2	4
BUS	268	Auditing Theory	3	0	3
BUS	123	Business Finance	3	0	3
			17	2	18
SIXTH QUARTER					
BUS	224	Intermediate Accounting	5	0	5
BUS	269	Auditing	3	0	3
BUS	227	Advanced Accounting	5	0	5
		OR			
BUS	229	Taxes	3	2	4
			11-13	0-2	12-14
TOTAL QUARTER HOURS IN COURSES					**101-103**

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101-A, 102-A, MAT 099, MAT 100R

**The Accounting student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 103, 112, 153, 231, 219, ECO 108, ENG 105, POL 102, 103, PSY 102, 206, SOC 102, SSC 101

BANKING AND FINANCE TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

	Course Title		C	L	CH
FIRST QUARTER					
	ENG 101	Grammar	3	0	3
*	MAT 110	Business Mathematics	5	0	5
	AIB 120	Accounting I	4	0	4
	ECO 102	Economics	3	0	3
	AIB 202	Principles of Bank Operation	4	0	4
			19	0	19
SECOND QUARTER					
	ENG 102	Composition	3	0	3
	EDP 114	Introduction to Computer Concepts	3	0	3
	AIB 121	Accounting II	4	0	4
	AIB 210	Money and Banking	4	0	4
	AIB 111	Business Administration	4	0	4
			18	0	18
THIRD QUARTER					
	AIB 214	Effective Speaking	4	0	4
	PSY 206	Applied Psychology	3	0	3
	AIB 212	Planning Management Development	0	2	1
	AIB 231	Saving, Time & Deposit Banking	4	0	4
	AIB 205	Bank Management	4	0	4
			15	2	16
FOURTH QUARTER					
	SOC 102	Principles of Sociology	3	0	3
	AIB 219	Credit Administration	4	0	4
	AIB 206	Bank Letters & Reports	4	0	4
	AIB 208	Conference Planning & Leadership	0	2	1
	AIB 203	Bank Investments	4	0	4
	AIB 234	Loss Prevention	0	2	1
			15	4	17

FIFTH QUARTER

AIB	233	Analyzing Financial Statements	4	0	4
AIB	259	Law & Banking	4	0	4
AIB	209	Installment Credit	4	0	4
BUS	232	Sales Development	3	0	3
AIB	239	Bank Public Relations & Marketing	4	0	4
			19	0	19

SIXTH QUARTER

AIB	272	Supervision & Personnel Administration	4	0	4
AIB	213	Trust Functions	4	0	4
AIB	236	Home Mortgage Lending	4	0	4
AIB	235	Loan & Discount	3	0	3
AIB	204	Bank Management by Objectives	0	2	1
			15	2	16

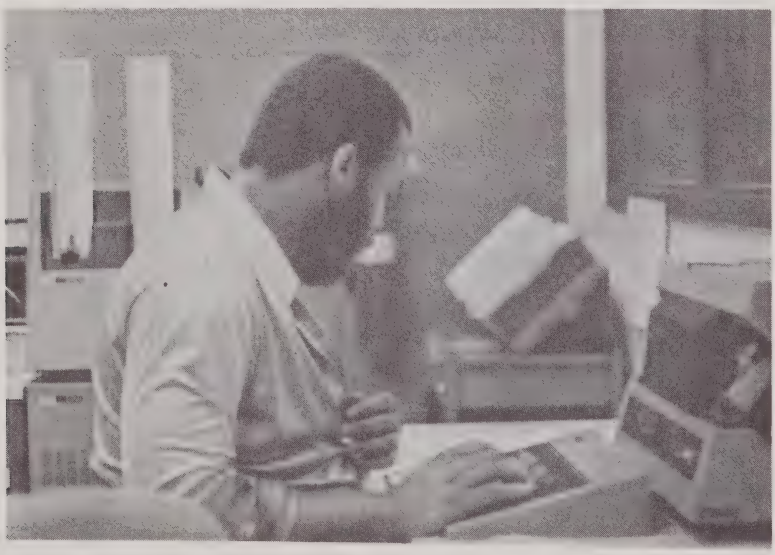
TOTAL QUARTER HOURS IN COURSES 105

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following lists:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101-A, 102-A, MAT 099, MAT 100R

The Banking and Finance student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:
BUS 102, 110
AIB 123, 207, 232, 237
ENG 105



BUSINESS ADMINISTRATION
SUGGESTED CURRICULUM BY QUARTERS

		Course Title	C	L	CH
FIRST QUARTER					
ENG	101	Grammar	3	0	3
BUS	101	Introduction to Business	3	0	3
ECO	102	Economics	3	0	3
* MAT	110	Business Mathematics	5	0	5
BUS	120	Principles of Accounting	5	0	5
			19	0	19
SECOND QUARTER					
ENG	102	Composition	3	0	3
ECO	104	Economics	3	0	3
BUS	115	Business Law	3	0	3
BUS	121	Principles of Accounting	5	0	5
BUS	102	Beginning Typewriting	2	3	3
			16	3	17
THIRD QUARTER					
ENG	204	Oral Communications	3	0	3
BUS	116	Business Law	3	0	3
BUS	122	Principles of Accounting	5	0	5
BUS	110	Office Machines	2	2	3
		Elective	3	0	3
			16	2	17
FOURTH QUARTER					
ENG	103	Report Writing	3	0	3
BUS	239	Marketing	5	0	5
BUS	232	Sales Development	3	0	3
BUS	235	Business Management	3	0	3
		Elective	3	0	3
			17	0	17
FIFTH QUARTER					
ENG	206	Business Communication	3	0	3
BUS	243	Advertising	3	2	4
BUS	123	Business Finance	3	0	3
EDP	114	Introduction to Computer Concepts	3	0	3
		Elective	3	0	3
			15	2	16
SIXTH QUARTER					
BUS	229	Taxes	3	2	4
BUS	271	Office Management	3	0	3
BUS	272	Principles of Supervision	3	0	3
		Elective	6	0	6
			15	2	16

TOTAL QUARTER HOURS IN COURSES **102**

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101-A, 102-A, MAT 099, MAT 100R

The Business Administration student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:
BUS 103, 112, 219, 222, 223, 225, 231, ECO 108, ENG 105, POL 102, 103, PSY 206, SOC 102, SSC 101

GENERAL OFFICE TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title					
FIRST QUARTER			**C**	**L**	**CH**
BUS	100	Business Education Orientation	1	0	1
BUS	101	Introduction to Business	3	0	3
BUS	102	Beginning Typewriting	2	3	3
COE	100	Student, Career, and Society	3	0	3
*ENG	101S	Secretarial Grammar	5	0	5
			14	3	15
SECOND QUARTER					
BUS	103	Intermediate Typewriting	2	3	3
BUS	117	Office Machines	3	2	4
EDP	105	Keypunch	3	2	4
ENG	102	Composition	3	0	3
MAT	110	Business Mathematics	5	0	5
			16	7	19
THIRD QUARTER					
BUS	104	Advanced Typewriting	2	3	3
BUS	112	Filing	3	0	3
BUS	134	Personal Grooming	3	0	3
BUS	120	Principles of Accounting	5	0	5
ENG	204	Oral Communications	3	0	3
			16	3	17
FOURTH QUARTER					
BUS	113	Machine Transcription I	5	0	5
BUS	231	Sales and Inventory Procedures	3	0	3
BUS	258	Speed Typewriting	2	3	3
ENG	206	Business Communications	3	0	3
		Business Elective	3	0	3
			16	3	17

FIFTH QUARTER

BUS	114	Machine Transcription II	5	0	5
BUS	205	Production Typewriting	2	3	3
BUS	216	Office Procedures	5	0	5
		Social Science Elective	3	0	3
			15	3	16

SIXTH QUARTER

BUS	213	Machine Transcription III	5	0	5
BUS	215	Office Application	0	10	1
		OR			
COE	101A	Cooperative Education Intern	0	10	1
BUS	259	Applied Office Typewriting	2	3	3
ECO	108	Consumer Economics	3	0	3
BUS	160-163	Magnetic-Tape Selectric Typewriting Series	0	8	4
			10	21	16

TOTAL QUARTER HOURS IN COURSES 100

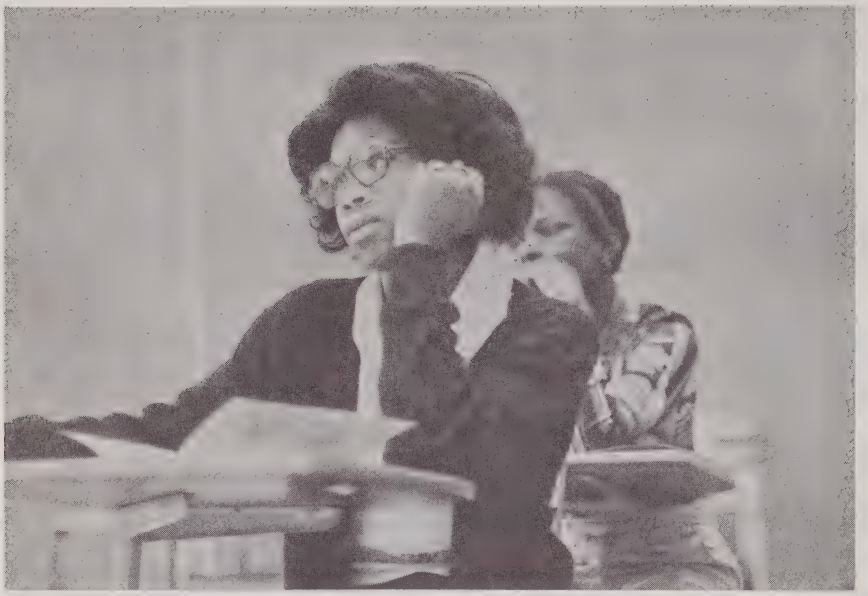
*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101, 101-A, 102-A, MAT 099, MAT 100R

The General Office Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUSINESS:
BUS 106, 107, 108, 206, 207 (and accompanying labs), 115, 116, 121, 122, 123, 152, 183L, 184M, 235
ECONOMICS:
ECO 102, 104
ELECTRONIC DATA PROCESSING:
EDP 104, 114
ENGLISH:
ENG 105, 106
PSYCHOLOGY:
PSY 101, 102, 206
POLITICAL SCIENCE:
POL 102, 103
SOCIOLOGY:
SOC 102
SOCIAL SCIENCE:
SSC 101



SECRETARIAL SCIENCE CURRICULUM
SUGGESTED CURRICULUM BY QUARTERS

	Course Title			C	L	CH
FIRST QUARTER						
	BUS	100	Business Education Orientation	1	0	1
*	ENG	101S	Secretarial Grammar	5	0	5
	BUS	102	Beginning Typewriting	2	3	3
	COE	100	Student Career and Society	3	0	3
	BUS	101	Introduction to Business	3	0	3
	BUS	134	Personal Grooming	3	0	3
				17	3	18
SECOND QUARTER						
	ENG	102	Composition	3	0	3
	BUS	103	Intermediate Typewriting	2	3	3
	*MAT	110	Business Mathematics	5	0	5
	BUS	106	Beginning Shorthand	5	0	5
	BUS	106A	Shorthand Lab	0	5	0
	BUS	117	Office Machines	3	2	4
				18	10	20
THIRD QUARTER						
	ENG	204	Oral Communications	3	0	3
	BUS	104	Advanced Typewriting	2	3	3
	BUS	107	Intermediate Shorthand	5	0	5
	BUS	107A	Shorthand Lab	0	5	0

BUS	187	Introduction to Transcription	3	0	3
BUS	120	Principles of Accounting	5	0	5
			18	8	19

FOURTH QUARTER

ENG	206	Business Communications	3	0	3
BUS	108	Advanced Shorthand	5	0	5
BUS	108A	Shorthand Lab	0	5	0
BUS	112	Filing	3	0	3
BUS	258	Speed Typewriting	2	3	3
ECO	108	Consumer Economics	3	0	3
			16	8	17

FIFTH QUARTER

BUS	206	Dictation and Transcription	5	0	5
BUS	206A	Shorthand Lab	0	5	0
BUS	216	Office Procedures	5	0	5
EDP	105	Keypunch	3	2	4
BUS	205	Production Typewriting	2	3	3
			15	10	17

SIXTH QUARTER

BUS	207	Dictation and Transcription	5	0	5
BUS	207A	Shorthand Lab	0	5	0
BUS	259	Applied Office Typewriting	2	3	3
BUS	271	Office Management	3	0	3
BUS	215	Office Application	0	10	1
		OR			
COE	101	Cooperative Education Intern	0	10	1
			10	18	12

TOTAL QUARTER HOURS IN COURSES 103

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101, 101-A, 102-A, MAT 099, MAT 100R

The Secretarial Science student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 113, 114, 115, 116, 121, 122, 123, 153, 160, 161, 162, 163, 183L, 184M, 213, 229, 231, 235, ECO 102, 104, EDP 104, 114, ENG 105, 106, PSY 102, 103, 206, SSC 101

COMMERCIAL ART & GRAPHIC DESIGN
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
CAT	121	Design I	3	6	6
CAT	102	Drawing	1	4	3
*ENG	101	Grammar	3	0	3
DFT	101	Technical Drafting	1	3	2
BUS	102	Beginning Typewriting	2	3	3
			10	16	17
SECOND QUARTER					
CAT	122	Design II	3	6	6
CAT	103	Drawing II	1	4	3
CAT	110	Survey of Art History	3	0	3
ENG	102	Composition	3	0	3
DFT	102	Technical Drafting	1	3	2
			11	13	17
THIRD QUARTER					
CAT	123	Layout and Design I	2	6	5
CAT	101	Advertising Principles	3	0	3

PHO	116	Photography	2	4	4
CAT	104	Drawing III	1	4	3
ENG	204	Oral Communication	3	0	3
			11	14	18

FOURTH QUARTER

CAT	224	Layout and Design II	3	6	6
CAT	210	Production Techniques	1	4	3
PHO	217	Photograph	2	4	4
CAT	212	Advertising Illustration	1	4	3
ENG	104	Creative Expression	3	0	3
			10	18	19

FIFTH QUARTER

CAT	225	Graphic Design I	3	6	6
CAT	214	Type and Letter Form Design	1	4	3
CAT	213	Advertising Illustration	1	4	3
MAT	100	Review of Fundamental Mathematics	5	0	5
		Social Science Elective	3	0	3
			13	14	20

SIXTH QUARTER

CAT	226	Graphic Design II	3	6	6
CAT	218	Photomechanical Techniques	2	6	5
CAT	235	Portfolio Development	1	4	3
		Social Science Elective	3	0	3
			9	16	17

TOTAL QUARTER HOURS IN COURSES 108

*In the event students, as a result of placement tests or grades, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 099, 100R

The Commercial Art and Graphic Design student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

CAT 105, 106, 201, 212, 250
ENG 105
MAT 109
PHO 218, 219, 220
PSY 102,
SOC 102
SSC 101

COOPERATIVE EDUCATION

The Cooperative Education Program is designed to give the students the opportunity to integrate their classroom study with practical experience in their major field. This is done by working part-time and attending school part-time on an alternating quarter basis.

Student Eligibility Requirements:

A. All curriculum students enrolled for at least six credit quarter hours and maintaining a grade point average of 2.00 and/or have permission from the Department Chairperson and Cooperative Education Director, are eligible to enroll in Cooperative Education.
B. Students should plan to graduate from Pitt Technical Institute.
C. Students should intend to remain in the Cooperative Education Program until graduation from Pitt Technical Institute or until the maximum credit hours allowed are earned.

Students who are interested in the Cooperative Education Program should make application according to the following procedures:

A. Obtain an "Application for Cooperative Education Program" form from the Cooperative Education Office, and make an appointment for reviewing the completed application with the Coordinator.
B. The Coordinator will conduct an indepth interview with the student with regard to his career and possible cooperative assignments.
C. If the student is accepted, the Cooperative Education Coordinator with the assistance of the Department Chairperson will be responsible for locating an appropriate training position.

Academic credit for Cooperative Education may be earned as follows:

A. The formula for awarding credit will be one (1) quarter credit hour for satisfactory completion of each quarter's cooperative training assignment of ten (10) contact hours per week. A maximum of four (4) credit hours may be earned in Cooperative Education per quarter. The Cooperative Education Department will grade the assignment based on reports submitted by the student and the evaluation made by the employer.
B. Students enrolled in Cooperative Education may receive academic credit for Co-op. Such credit, up to a maximum of nine (9) credit quarter hours, shall be non-additive; that is, the student may use it to satisfy degree requirements. If the classroom course (COE 100) is taken, a total of twelve (12) Co-op credit hours may be earned.

For futher information contact the Co-op office.

EARLY CHILDHOOD ASSOCIATE
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
*ENG	101	Grammar	3	0	3
MAT	100R	Computational Skills	5	0	5
PSY	101	Introduction to Psychology	5	0	5
SOC	101	Introduction to Sociology	5	0	5
BUS	102	Beginning Typing	2	3	3
			20	3	21
SECOND QUARTER					
ENG	102	Composition	3	0	3
EDU	203	Exceptional Child	3	0	3
BUS	103	Intermediate Typing	2	3	3
PSY	115	Child Growth and Development: Prenatal-Early Childhood	3	0	3
EDU	231	Creative Activities	5	0	5
			16	3	17
THIRD QUARTER					
ENG	103	Report Writing	3	0	3
EDU	111	Language Arts Techniques - I	3	0	3
EDU	115	A-V and Media Instruction	3	2	4
PSY	116	Child Growth and Development: Middle Childhood & Adolescence	3	0	3
EDU	106	Practicum in the Elementary School or Elective	1	15	6
			13	17	19
FOURTH QUARTER					
ENG	204	Oral Communication	3	0	3
HEA	110	First Aid and Medical Terminology	2	2	3
PSY	112	Personality Development	3	0	3
HEA	105	Family School and Community Health	3	0	3
EDU	107	Practium in Pre-School Experiences or Elective	1	15	6
			12	17	18
FIFTH QUARTER					
EDU	204	Parent Education	3	0	3
EDU	230	Pre-School Education	5	4	7
NUT	101	Basic Nutrition	3	0	3
EDU	226	Educating the Disadvantaged Student	3	0	3
		Elective	3	0	3
			17	4	19
SIXTH QUARTER					
EDU	225	Seminar-Practicum	1	39	14

SEVENTH QUARTER					
ECO	108	Consumer Economics	3	0	3
SOC	221	Family	3	0	3
ENG	217	Children's Literature	3	0	3
NUT	102	Food for Children	2	2	3
PSY	220	Psychology of Learning	5	0	5
			16	2	17

TOTAL QUARTER HOURS IN COURSES 125

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101, 101-A, 102-A, MAT 099

The Early Childhood Associate student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 110, 112, 134
ECO 102
ENG 104, 105, 106
PSY 206
SSC 101

EDUCATIONAL ASSOCIATE
SUGGESTED CURRICULUM BY QUARTERS

	Course Title				
FIRST QUARTER			**C**	**L**	**CH**
* ENG	101	Grammar	3	0	3
MAT	100R	Computational Skills	5	0	5
PSY	101	Introduction to Psychology	5	0	5
SOC	101	Introduction to Sociology	5	0	5
BUS	102	Beginning Typing	2	3	3
			20	3	21
SECOND QUARTER					
ENG	102	Composition	3	0	3
EDU	203	Exceptional Child	3	0	3
BUS	103	Intermediate Typing	2	3	3
PSY	115	Child Growth and Development: Prenatal-Early Childhood	3	0	3
EDU	231	Creative Activities	5	0	5
			16	3	17

THIRD QUARTER

ENG	103	Report Writing	3	0	3
EDU	111	Language Arts Techniques - I	3	0	3
EDU	115	A-V and Media Instruction	3	2	4
PSY	116	Child Growth and Development: Middle Childhood and Adolescence	3	0	3
EDU	106	Practicum in the Elementary School or Elective	1	15	6
			13	17	19

FOURTH QUARTER

ENG	204	Oral Communications	3	0	3
HEA	110	First Aid and Medical Terminology	2	2	3
PSY	112	Personality Development	3	0	3
HEA	105	Family, School and Community Health	3	0	3
EDU	107	Practicum in Pre-School Experiences or Elective	1	15	6
			12	17	18

FIFTH QUARTER

EDU	204	Parent Education	3	0	3
EDU	212	Language Arts Techniques - II	3	4	5
MAT	210	Concepts of Modern Math	4	2	5
EDU	226	Educating the Disadvantaged Student	3	0	3
		Elective	3	0	3
			16	6	19

SIXTH QUARTER

EDU	225	Seminar-Practicum	1	39	14
			1	39	14

SEVENTH QUARTER

ECO	108	Consumer Economics	3	0	3
SOC	221	Family	3	0	3
ENG	217	Children's Literature	3	0	3
PSY	220	Psychology of Learning	5	0	5
EDU	101	Introduction to Education	3	0	3
		Elective			
			17	0	17

TOTAL QUARTER HOURS IN COURSES 125

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses form the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 099

The Educational Associate student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

CAT 110, 121, 122
ENG 105, 106, 250, 251, 252, 253, 254, 255
PHO 116
POL 102
SOC 103
SSC 101

ELECTRONIC DATA PROCESSING
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
EDP	114	Introduction to Computer Concepts	3	0	3
EDP	115	FORTRAN	2	4	4
* MAT	110	Business Mathematics	5	0	5
EDP	105	Keypunch	3	2	4
* ENG	101	Grammar	3	0	3
			16	6	19
SECOND QUARTER					
BUS	115	Business Law	3	0	3
EDP	118	COBOL I	2	4	4
BUS	120	Principles of Accounting	5	0	5
ENG	102	Composition	3	0	3
		Business or Social Science Elective	3	0	3
			16	4	18
THIRD QUARTER					
EDP	119	COBOL II	2	4	4
EDP	223	Introduction to RPG II	2	4	4
BUS	121	Principles of Accounting	5	0	5
ENG	204	Oral Communications	3	0	3
		Business or Social Science Elective	3	0	3
			15	8	19
FOURTH QUARTER					
EDP	214	Computer Systems I	2	2	3
EDP	224	RPG II	2	4	4
BUS	122	Principles of Accounting	5	0	5
MAT	111	Computer Mathematics	5	0	5
			14	6	17
FIFTH QUARTER					
EDP	232	Communications Control Programs	2	4	4
EDP	211	Applications I	2	4	4
BUS	235	Business Management	3	0	3
BUS	225	Cost Accounting	3	2	4
ENG	206	Business Communications	3	0	3
			13	10	18

SIXTH QUARTER

EDP	212	Applications II	2	4	4
EDP	230	Internship I	0	10	5
EDP	231	Internship II	0	10	5
		Business or Social Science Elective	3	0	3
			5	24	17

TOTAL QUARTER HOUR IN COURSES 108

*In the event entering students, as a result of placement tests or grades, are found to be dificient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 099, 100R

The Electronic Data Processing student may select elective credits from the list of recommended electives or from other related courses, and make substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 116, 134, 150, 151, 152, 153, 222, 229, 272
COE 100, 101A-106D
ECO 102, 104, 108
ENG 103, 105
EDP 116, 117
PSY 102
SOC 102
SSC 101

ELECTRONICS TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title					
FIRST QUARTER					
* ENG	101	Grammar	3	0	3
* MAT	101	Algebra I	5	0	5
DFT	101	Technical Drafting	0	6	2
ELN	100	Introduction to Electronics	3	2	4
MEC	101	Machine Shop Processes	1	3	2
			12	11	16

SECOND QUARTER

MAT	102	Trigonometry	5	0	5
DFT	102	Technical Drafting	0	6	2
ELC	101	Fundamentals of Electricity I	4	4	6
PHY	101	Technical Physics	4	2	5
ENG	102	Composition	3	0	3
			16	12	21

THIRD QUARTER					
MAT	103	Algebra II	5	0	5
ELC	102	Fundamentals of Electricity II	5	4	7
PHY	102	Technical Physics	4	2	5
ENG	204	Oral Communications	3	0	5
			16	6	19
FOURTH QUARTER					
MAT	104	Calculus I	5	0	5
ELN	105	Control Devices	5	4	7
PHY	104	Technical Physics	4	2	5
ELN	101	Elect. Instruments and Measurements	1	4	3
		Social Science Elective	3	0	3
			18	10	23
FIFTH QUARTER					
MAT	201	Calculus II	5	0	5
ENG	103	Report Writing	3	0	3
ELN	205	Application of Vacuum Tubes and Transistors	5	6	8
ELC	210	Rotating Devices	2	2	3
			15	8	19
SIXTH QUARTER					
ELN	211P	Communication Circuits	3	6	5
ELN	214	Wave Shaping and Pulse Circuits I	2	3	3
ELN	210	Semiconductor Circuit Analysis	5	4	7
		Social Science Elective	3	0	3
			13	13	18
SEVENTH QUARTER					
ELN	235	Industrial Instrumentation	3	3	4
ELN	215	Wave Shaping and Pulse Circuits II	4	4	6
ELN	220	Electronics Systems	5	4	7
		Technical Elective	3	4	5
			15	15	22

TOTAL QUARTER HOURS IN COURSES 138

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 100

The Electronics Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

ELN 218, 230, 245, ENG 105, MAT 204, PSY 102, SOC 102, SSC 101

FOOD SERVICE SUPERVISION
SUGGESTED CURRICULUM BY QUARTER

Course		Title			
FIRST QUARTER					
* ENG	101	Grammar	3	0	3
HOME	5	Food	2	6	5
MAT	101	Algebra I	5	0	5
CHM	101	Chemistry (Refresher)	4	2	5
BUS	134	Personal Grooming	3	0	3
			17	8	21
SECOND QUARTER					
ENG	102	Composition	3	0	3
HOME	105	Nutrition	3	0	3
BIO	114	Human Anatomy and Physiology	4	2	5
BUS	115	Business Law	3	0	3
BUS	101	Introduction to Business	3	0	3
			16	2	17
THIRD QUARTER					
* MAT	110	Business Math	5	0	5
ENG	103	Report Writing	3	0	3
HOME	205	Advanced Food	2	6	5
HOME	303	Food for Children	2	2	3
HEA	110	First Aid	2	2	3
			14	10	19
FOURTH QUARTER					
CSP	110	Food Service Practicum I*	4	36	8
ENG	204	Oral Communications**	3	0	3
PSY	206	Applied Psychology**	3	0	3
			10	36	14

* Course will be taken first half of summer school.
** Course will be taken second half of summer school.

FIFTH QUARTER					
HOME	327	Food Purchasing and Cost Control	1	4	3
HOME	328	Quantity Food	2	6	5
CSP	203	Food Service Practicum II	1	9	4
BUS	120	Principles of Accounting	5	0	5
			9	19	17
SIXTH QUARTER					
HOME	330	Institution Management and Organization	3	0	3
HOME	360a	Independent Study (Institution Equipment)	3	0	3
ENG	206	Business Communication	3	0	3
CSP	214	Food Service Practicum III	1	9	4
			10	9	13

SEVENTH QUARTER					
BUS	272	Principles of Supervision	3	0	3
ECO	102	Economics	3	0	3
BUS	102	Beginning Typewriting	2	3	3
BUS	235	Business Management	3	0	3
SOC	102	Principles of Sociology	3	0	3
			14	3	15

TOTAL QUARTER HOURS IN COURSES 116

+Courses with a letter prefix HOME will be taught at East Carolina University.

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101-A, 102-A, MAT 100R, 100

The Food Service Supervision student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

HUMAN SERVICES TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title					
FIRST QUARTER			**C**	**L**	**CH**
* ENG	101	Grammar	3	0	3
PSY	101	Introduction to Psychology	5	0	5
SOC	101	Introduction to Sociology	5	0	5
HSA	111	Introduction to Human Services	3	3	4
HSA	112	Group Processes I	1	3	2
			17	6	19
SECOND QUARTER					
ENG	102	Composition	3	0	3
PSY	211	Behavior Disorder	5	0	5
PSY	120	Human Development	3	0	3
HSA	113	Group Processes II	1	3	2
HSA	100	Basic Health Science	3	0	3
HSA	112P	Practicum I	0	6	2
			15	9	18
THIRD QUARTER					
HSA	114	Interviewing and Counseling	3	2	4
HSA	116	Group Processes III	1	3	2
HSA	225	Crisis Intervention	2	2	3

ENG	103	Report Writing	3	0	3
HSA	220	Activities in Human Services	2	2	3
HSA	113P	Practicum II	0	6	2
			11	15	17

FOURTH QUARTER

HSA	115	Internship	7	33	18
			7	33	18

MENTAL HEALTH TRACT

FIFTH QUARTER

ENG	204	Oral Communication	3	0	3
PSY	219	Introduction to Personality	3	0	3
PSY	230	Psychology & Physiology of Aging	3	0	3
SOC	221	Family	3	0	3
		Mental Health Elective	0	2-6	1-2
			12	2-6	13-14

SIXTH QUARTER

MHA	201	Mental Health Care	4	3	5
MHA	209	Treatment Modalities	2	4	4
MHA	211P	Practicum IV	0	6	2
PSY	220	Learning and Behavior	3	4	5
		Mental Health Elective	0-2	2-6	1-3
			9-11	19-23	17-19

SEVENTH QUARTER

MHA	215	Mental Health Seminar	3	0	3
MHA	215P	Practicum V	0	6	2
PSY	225	Tests and Measurements	3	0	3
PSY	222	Exceptionality	5	0	5
		Mental Health Elective	0-2	2-6	1-3
			11-13	8-12	14-16

TOTAL QUARTER HOURS IN COURSES 116-121

*In the event students, as a result of placement tests or grades, are found to be deficient in English skills, they will be required to take the appropriate courses from the following list.

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A

The Human Services Associate/Mental Health Associate student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 102
EDU 203, 204

ENG 105
PSC 102, 110
MHA 210P, 131, 132, 133, 231, 232, 233, 213, 208, 216

INDUSTRIAL MAINTENANCE ENGINEER
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
ELC	112	Alternating and Direct Current	2	6	4
MAT	100	Review of Fundamental Math	5	0	5
			7	6	9
SECOND QUARTER					
ELC	113	AC and DC Machines and Controls	2	6	4
MAT	120	Metric Math	3	0	3
WLD	120	Welding, Oxyacetylene	2	3	3
			7	9	10
THIRD QUARTER					
ELC	119	Industrial Electrical Controls and Systems	2	6	4
ENG	101	Grammar	3	0	3
ISC	102	Industrial Safety	3	0	3
			8	6	10
FOURTH QUARTER					
ELC	121	Electrical Trouble Shooting	2	3	3
WLD	121	Arc Welding	2	6	4
			4	9	7
FIFTH QUARTER					
DFT	104	Blueprint Reading, Mechanical	3	0	3
ENG	204	Oral Communications	3	0	3
MEC	101	Machine Processes	3	3	4
			9	3	10
SIXTH QUARTER					
DFT	105	Blueprint Reading and Sketching	3	0	3
ISC	201	Industrial Organization and Management	3	0	3
MEC	102	Machine Processes	3	3	4
			9	3	10
SEVENTH QUARTER					
AHR	101	Air Conditioning and Refrigeration	3	3	4
MEC	210	Physical Metallurgy	3	3	4
			6	6	8

EIGHTH QUARTER

MEC	114	Shop Practice	1	6	3
MEC	222	Rigging and Material Handling	2	3	3
			3	9	6

NINTH QUARTER

BUS	272	Principles of Supervision	3	0	3
WLD	122	Commercial and Industrial Practice	2	3	3
		Elective	3	0	3
			8	3	9

TENTH QUARTER

ISC	205	Maintenance Management	3	0	3
MEC	235	Hydraulics and Pneumatics	3	3	4
PSY	206	Applied Psychology	3	0	3
			9	3	10

ELEVENTH QUARTER

ISC	202	Quality Control	3	0	3
MEC	298	Maintenance Problems I	2	3	3
		Social Science Elective	3	0	3
			8	3	9

TWELFTH QUARTER

MEC	225	Practicum	0	6	2
MEC	299	Maintenance Problems II	2	3	3
		Social Science Elective	3	0	3
			5	9	8

TOTAL QUARTER HOURS IN COURSES 106

The Industrial Maintenance Engineer student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

Industrial Maintenance Engineer
- DFT 101
- EDP 104
- ENG 105
- ISC 110, 120, 130, 140, 150, 160, 209
- MAT 101

Social Science Elective
- PSC 102
- PSY 101, 102, 104, 120, 217, 228
- SOC 101, 102, 103, 104
- SSC 101, 201

INDUSTRIAL MANAGEMENT TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
* ENG	101	Grammar	3	0	3
* MAT	101	Algebra I	5	0	5
EDP	104	Introduction to Data Processing	3	0	3
** ISC	110	Readings in Industrial Management	1	0	1
			12	0	12
SECOND QUARTER					
ENG	102	Composition	3	0	3
MAT	120	Metric Mathematics	3	0	3
ISC	120	Readings in Industrial Management	1	0	1
ISC	231	Manufacturing Processes	5	0	5
			12	0	12
THIRD QUARTER					
ENG	103	Report Writing	3	0	3
ISC	102	Industrial Safety	3	0	3
BUS	128	Basic Accounting I	3	0	3
ISC	203	Motion Economy	3	0	3
			12	0	12
FOURTH QUARTER					
ENG	204	Oral Communications	3	0	3
ISC	204	Value Analysis	3	0	3
BUS	129	Basic Accounting II	3	0	3
ISC	202	Quality Control	3	0	3
			12	0	12
FIFTH QUARTER					
BUS	123	Business Finance	3	0	3
BUS	115	Business Law	3	0	3
ECO	102	Economics	3	0	3
SOC	102	Principles of Sociology	3	0	3
			12	0	12
SIXTH QUARTER					
ISC	213	Production Planning	4	0	4
BUS	229	Taxes	3	2	4
ISC	130	Readings in Industrial Management	1	0	1
ECO	104	Economics	3	0	3
			11	2	12
SEVENTH QUARTER					
BUS	239	Marketing	5	0	5
ISC	209	Plant Layout	4	0	4
BUS	235	Business Management	3	0	3
			12	0	12

EIGHTH QUARTER

BUS	272	Supervision	3	0	3
PSY	206	Applied Psychology	3	0	3
ISC	232	Labor Relations	4	0	4
DFT	101	Technical Drafting	1	3	2
			11	3	12

TOTAL QUARTER HOURS IN COURSES 96

*In the event students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 100R, 100

The Industrial Management Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

**ISC 140, 150, 160

Cooperative Education credits will substitute for Social Science and Reading courses on a credit-for-credit basis up to nine (9) hours maximum.

PARALEGAL CURRICULUM
SUGGESTED CURRICULUM BY QUARTERS

Course Title					
FIRST QUARTER *					
**CJC	101	Introduction to Criminal Justice	5	0	5
PSY	102	General Psychology	3	0	3
CJC	115	Criminal Law I	3	0	3
HEA	110	First Aid & Medical Terminology	2	2	3
BUS	102	Beginning Typewriting	2	3	3
			15	5	17
SECOND QUARTER					
CJC	116	Criminal Law II	3	0	3
* ENG	101	Grammar	3	0	3
POL	102	National Government	3	0	3
* MAT	101	Algebra I	5	0	5
CJC	120	Principles of Organization	3	0	3
CJC	109	Interviewing	3	0	3
			20	0	20

THIRD QUARTER

CJC	112	Motor Vehicle Law	3	0	3
ENG	102	Composition	3	0	3
CJC	121	Personnel Supervision	3	0	3
CHM	101	Chemistry	4	2	5
POL	103	State & Local Government	3	0	3
CJC	125	Criminal Procedure	2	0	2
			18	2	19

FOURTH QUARTER

BUS	120	Accounting	5	0	5
ENG	206	Business Communications	3	0	3
LEC	220	Family Law	3	0	3
LEC	224	Torts	3	0	3
ENG	204	Oral Communications	3	0	3
			17	0	17

FIFTH QUARTER

LEC	201	Real Property and Title Abstracting I	2	2	3
CJC	211	Criminalistics	4	2	5
BUS	115	Business Law I	3	0	3
CJC	205	Evidence	3	0	3
LEC	203	Legal Research	2	2	3
			14	6	17

SIXTH QUARTER

LEC	211	Real Property and Title Abstracting II	2	2	3
ENG	103	Report Writing	3	0	3
LEC	229	Income Tax	3	0	3
CJC	204	Photography	3	2	4
LEC	232	Estate Administration	3	0	3
BUS	116	Business Law II	3	0	3
			17	4	19

SEVENTH QUARTER

LEC	212	Real Estate Transactions	3	0	3
LEC	207	Law Office Management	3	0	3
LEC	240	Litigation Preparation	3	0	3
CJC	210	Criminal Investigation	4	2	5
CJC	235	Forensic Science	3	2	4
			16	4	18

TOTAL QUARTER HOURS IN COURSES 127

*In the event students, as a result of placement tests or grades are found to be deficient in math and English skills, they will be required to take the appropriate courses, as additional credits, from the following lists:

ENG 100R-2, 100R-3, 100G, 100G-A, 101-A, 102-A, MAT 100R, 100

Course substitutions may be made from appropriate subject areas on a credit-for-credit basis upon approval by the department chairperson.

POLICE SCIENCE
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
CJC	101	Introduction to Criminal Justice	5	0	5
PSY	102	Psychology	3	0	3
CJC	115	Criminal Law I	3	0	3
HEA	110	First Aid and Medical Terminology	2	2	3
BUS	102	Beginning Typewriting	2	3	3
			15	5	17
SECOND QUARTER					
CJC	116	Criminal Law II	3	0	3
ENG	101	Grammar	3	0	3
POL	102	National Government	3	0	3
MAT	101	Algebra I	5	0	5
CJC	120	Principles of Organization	3	0	3
CJC	109	Interviewing	3	0	3
			20	0	20
THIRD QUARTER					
CJC	112	Motor Vehicle Law	3	0	3
ENG	102	Composition	3	0	3
CJC	121	Personnel Supervision	3	0	3
CHM	101	Chemistry	4	2	5
POL	103	State and Local Government	3	0	3
CJC	125	Criminal Procedure	2	0	2
			18	19	20
FOURTH QUARTER					
CJC	211	Criminalistics	4	2	5
ENG	204	Oral Communication	3	0	3
SOC	102	Sociology	3	0	3
PSC	102	Criminology	3	0	3
CJC	205	Evidence	3	0	3
PSY	228	Abnormal Psychology	3	0	3
			19	2	20
FIFTH QUARTER					
CJC	204	Evidence Photography	3	2	4
PSC	213	Identification Techniques	3	2	4
ENG	103	Report Writing	3	0	3
PSC	201	Patrol Procedures	4	2	5
PSC	103	Penology	3	0	3
			16	6	19
SIXTH QUARTER					
PSC	240	Firearms and Defensive Tactics	2	2	3
CJC	210	Criminal Investigation	4	2	5
CJC	235	Forensic Science	3	2	4

PSC	110	Juvenile Delinquency	5	0	5
PSC	202	Police Community Relations	2	0	2
			16	6	19

TOTAL QUARTER HOURS IN COURSES 114

*In the event students, as a result of placement tests or grades are found to be deficient in math and English skills, they will be required to take the appropriate courses, as additional credits, from the following lists:

ENG 100R-2, 100R-3, 100-G, 100G-A, 101-A, 102-A, MAT 100R, 100

Course substitutions may be made from appropriate subject areas on a credit-for-credit basis upon approval by the department chairperson.

**CJC 151, 152, 153, 154, 155, and 156 totaling 6 quarter hours of credit may be substituted for CJC 101 Introduction to Criminal Justice, which is a 5 credit hour course, making the total quarter hours in courses 128.

CAREER OPTION NURSING EDUCATION PROGRAM
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
NUR	101	Fundamentals of Nursing	6	6	0	9
BIO	101	Basic Life Sciences	4	2	0	5
SOC	102H	Principles of Sociology (For Health Professions)	3	0	0	3
NUT	101	Basic Nutrition	3	0	0	3
MAT	114	Basic Math for Health Professions	3	0	0	3
			19	8	0	23
SECOND QUARTER						
NUR	102	Medical-Surgical Nursing I	8	0	15	13
NUR	110	Pharmacology	3	0	0	3
PSY	104	Human Relations	3	0	0	3
			14	0	15	19
THIRD QUARTER						
NUR	103	Medical-Surgical Nursing II	9	0	15	14
PSY	120	Human Growth & Development	3	0	0	3
ENG	101	Grammar	3	0	0	3
			15	0	15	20
FOURTH QUARTER						
NUR	131	Nursing Seminar	3	0	0	3
NUR	104	Maternal Child Health Nursing I	8	0	15	13
+BIO	206	Microbiology	2	2	0	3
			13	2	15	19

TOTAL QUARTER HOURS IN COURSES FOR PRACTICAL NURSES 78

EXIT POINT FOR PRACTICAL NURSES

ENTRY POINT FOR LICENSED PRACTICAL NURSES

FIFTH QUARTER							
*	NUR	201	Advanced Maternity Nursing	3	0	8	6
*	NUR	203	Clinical Nursing I	2	0	8	5
	BIO	201	Integrated Science I	4	2	0	5
				9	2	16	16
SIXTH QUARTER							
	NUR	204	Clinical Nursing II	6	0	16	11
	BIO	202	Integrated Science II	4	2	0	5
	PSY	102H	General Psychology	3	0	0	3
				13	2	16	19
SEVENTH QUARTER							
	BIO	203	Integrated Science III	4	2	0	5
	NUR	202	Psychiatric Nursing	6	0	15	11
	ENG	102	Composition	3	0	0	3
				13	2	15	19
EIGHTH QUARTER							
	NUR	205	Clinical Nursing III	5	0	18	11
	NUR	231	Nursing Seminar	3	0	0	3
				8	0	18	14
	NUR	235	Elective-Special Problems in Nursing (Not Required)	0	0	0	2
			Total Credit Hours for Second Level				71
			Total Credit Hours for First Level				78
TOTAL QUARTER HOURS IN COURSES FOR ASSOCIATE DEGREE							**149**

+Required only for students entering the fifth quarter.
*Students will be divided into two groups and spend 1/2 quarter in Maternity Nursing -- 1/2 quarter in Clinical Nursing.

Course substitutions from appropriate subject areas on a credit-for-credit basis may be made upon approval by the student's department chairperson.

RADIOLOGIC TECHNOLOGY
SUGGESTED CURRICULUM BY QUARTERS

	Course Title			C	L	CL	CH
FIRST QUARTER							
*	ENG	101	Grammar	3	0	0	3
	MAT	101	Algebra I	5	0	0	5
	SOC	102H	Principles of Sociology	3	0	0	3
	BIO	107	Human Anatomy and Physiology	4	2	0	5
	RDT	101	Radiologic Technology I	4	2	0	5
	PHY	107	Radiologic Physics	3	3	0	4
	RDT	111	Clinical Education	2	0	6	4
				24	7	6	29
SECOND QUARTER							
	ENG	102	Composition	3	0	0	3
	PSY	104	Human Relations	3	0	0	3
	BIO	108	Human Anatomy and Physiology	4	2	0	5
	RDT	102	Radiologic Technology II	4	3	0	5
	RDT	112	Clinical Education	1	0	15	6
			*Elective	3-5	2-3	0	3-5
				18-20	7-8	15	25-27

THIRD QUARTER						
ENG	103	Report Writing	3	0	0	3
RDT	103	Radiologic Technology III	4	2	0	5
BUS	272	Principles of Supervision	3	0	0	3
RDT	201	Topographic Anatomy	2	0	0	2
RDT	113	Clinical Education	1	0	24	9
			13	2	24	22
FOURTH QUARTER						
RDT	204	Radiologic Technology IV	4	3	0	5
RDT	114	Clinical Education	1	0	33	12
			5	3	33	17
FIFTH QUARTER						
RDT	215	Clinical Education	1	0	39	14
SIXTH QUARTER						
BUS	115	Business Law	3	0	0	3
BIO	208	Pathology for Allied Health	3	0	0	3
RDT	205	Radiologic Technology V	4	3	0	5
RDT	216	Clinical Education	1	0	24	9
PSY	102	General Psychology	3	0	0	3
			14	3	24	23
SEVENTH QUARTER						
RDT	206	Radiologic Technology VI	4	0	0	4
RDT	217	Clinical Education	1	0	36	13
			5	0	36	17
EIGHTH QUARTER						
RDT	208	Radiologic Technology VII	6	0	0	6
RDT	218	Clinical Education	1	0	33	12
			7	0	33	18

TOTAL QUARTER HOURS IN COURSES 165-167

*The Radiologic Technology student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BIO 203, BUS 183M, CHM 101, MAT 100, 101, 110, PHO 116, PHY 101

VOCATIONAL EDUCATION

AUTO BODY REPAIR
SUGGESTED CURRICULUM BY QUARTER

Course Title			C	L	CL	CH
FIRST QUARTER						
AUT	1111	Auto Body Repair	3	0	12	7
MAT	1101	Fundamentals of Mathematics	5	0	0	5
PHY	1101	Applied Science	3	2	0	4
* ENG	1101	Reading Improvement	2	0	0	2
WLD	1102	Basic Gas Welding	0	0	3	1
			13	2	15	19
SECOND QUARTER						
AUT	1112	Auto Body Repair	3	0	12	7
WLD	1105	Auto Body Welding	0	0	3	1
DFT	1101	Schematics and Diagrams: Power Mechanics	0	0	3	1
PHY	1102	Applied Science	3	2	0	4
ENG	1102	Communication Skills	3	0	0	3
			9	2	18	16
THIRD QUARTER						
AUT	1113	Metal Finishing and Painting	3	0	12	7
PSY	1101	Human Relations	3	0	0	3
AUT	1115	Trim, Glass and Radiator Repair	2	0	9	5
			8	0	21	15
FOURTH QUARTER						
AUT	1114	Body Shop Applications	3	0	12	10
BUS	1103	Small Business Operations	3	0	0	3
			6	0	21	13

TOTAL QUARTER HOURS IN COURSES 63

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108
MAT 0099, 1000

The Auto Body Repair student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

AUTOMOTIVE MECHANICS
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
PME	1101	Internal Combustion Engines	3	0	12	7
PME	1111	Foreign Car Engine Familiarization	0	0	3	1
MAT	1101	Fundamentals of Mathematics	5	0	0	5
* ENG	1101	Reading Improvement	2	0	0	2
WLD	1129	Basic Gas Welding	2	0	3	3
			12	0	18	18
SECOND QUARTER						
PME	1102	Electrical Systems	5	0	9	8
PME	1112	Foreign Car Fuel Systems	2	0	0	2
ENG	1102	Communication Skills	3	0	0	3
MEC	1147	Systems of Measurement and Measuring Tools	2	0	0	2
PHY	1103	Principles of Electricity	3	2	0	4
			15	2	9	19
THIRD QUARTER						
PME	1104	Fuel Systems	3	0	6	5
AHR	1101	Automotive Air Conditioning	2	0	3	3
PME	1123	Brakes, Chassis, and Suspension	3	0	9	6
PSY	1101	Human Relations	3	0	0	3
			11	0	18	17
FOURTH QUARTER						
PME	1225	Automotive Trouble Shooting	5	0	12	9
PME	1223	General Automotive Maintenance	1	0	6	3
			6	0	18	12

TOTAL QUARTER HOURS IN COURSES FOR STUDENT GRADUATING AFTER FOUR QUARTERS..... 66

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108
MAT 0099, 1000

Students who desire to graduate from the two-year program will either enroll in Cooperative Education or take a summer vacation, during the fourth quarter. Cooperative Education students will work forty (40) hours per week and earn four (4) credit hours. In September, students will enroll full-time and complete the fifth, sixth, and seventh quarters.

FIFTH QUARTER						
PME	1124	Power Trains	3	0	12	7
PME	1125	Auto Servicing	3	0	6	5
PME	1113	Foreign Car Power Trains	0	0	3	1
			6	0	21	13
SIXTH QUARTER						
PME	1202	Electricity/Electronics	3	0	9	6
PME	1204	Emission Controls	2	0	6	4
PME	1222	Foreign Car Electrical Systems	0	0	3	1
MEC	1112	Machine Shop Processes	1	0	3	2
			6	0	21	13
SEVENTH QUARTER						
PME	1224	Automatic Transmissions	3	0	9	6
PME	1227	Power Accessories	2	0	6	4
PME	1226	Advanced Auto Service-U.S. and Foreign Car	2	0	3	3
			7	0	18	13

TOTAL QUARTER HOURS IN COURSES FOR STUDENT GRADUATING FROM TWO-YEAR PROGRAM..... 105

The Automotive Mechanics student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

CARPENTRY AND CABINET MAKING SUGGESTED CURRICULUM BY QUARTERS

Course Title						
FIRST QUARTER			**C**	**L**	**CL**	**CH**
ENG	1101	Reading Improvement	2	0	0	2
MAT	1101	Fundamentals of Mathematics	5	0	0	5
DFT	1110	Blueprint Reading: Building Trades	3	0	0	3
CAR	1101	Carpentry	3	0	15	8
			13	0	15	18
SECOND QUARTER						
ENG	1102	Communication Skills	3	0	0	3
MAT	1112	Building Trades Mathematics	3	0	0	3
DFT	1111	Blueprint Reading and Sketching	3	0	0	3
CAR	1102	Carpentry: Millwork and Cabinetmaking	3	0	15	8
			12	0	15	17
THIRD QUARTER						
PSY	1101	Human Relations	3	0	0	3
CAR	1113	Carpentry: Estimating	3	0	3	4
CAR	1103	Carpentry: Framing	3	0	15	8
			9	0	18	15

FOURTH QUARTER

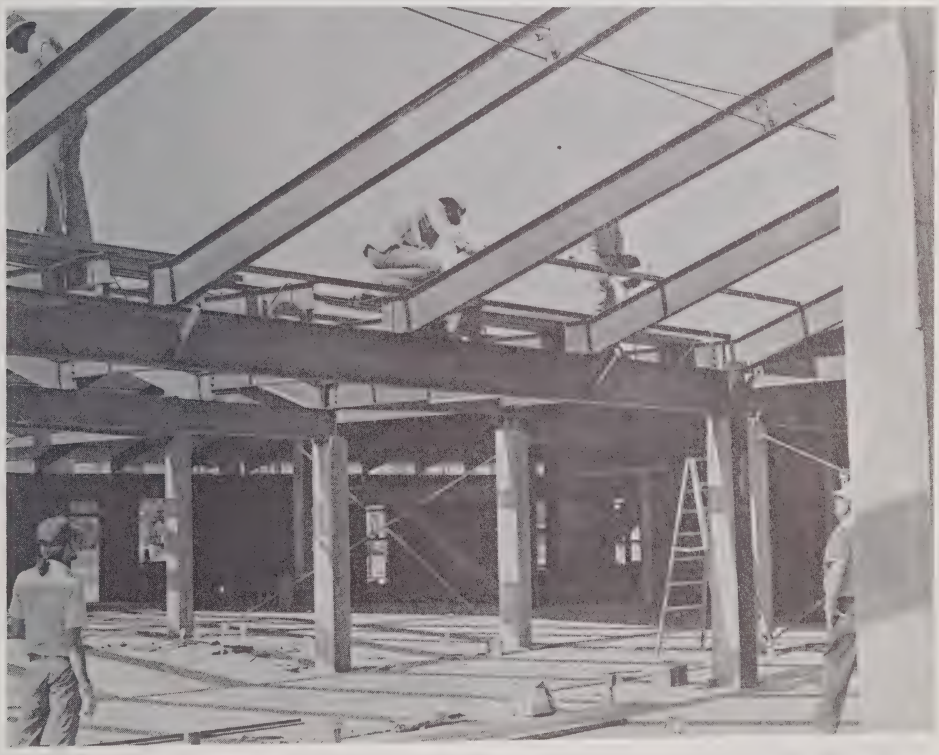
CAR	1114	Building Codes	3	0	0	3
BUS	1103	Small Business Operations	3	0	0	3
CAR	1104	Carpentry: Finishing	3	0	18	9
			9	0	18	15

TOTAL QUARTER HOURS IN COURSES 65

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108, MAT 0099, MAT 1000

The Carpentry student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.



COSMETOLOGY
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CH
FIRST QUARTER					
COS	1101	Cosmetology I	0	400	12
SECOND QUARTER					
COS	1102	Cosmetology II	0	400	12
THIRD QUARTER					
COS	1103	Cosmetology III	0	400	12
FOURTH QUARTER					
COS	1104	Cosmetology IV	0	300	12

ELECTRICAL INSTALLATION & MAINTENANCE
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
MAT	1101	Fundamentals of Mathematics	5	0	0	5
PHY	1101	Applied Science	3	2	0	4
ENG	1100	Reading and Communication Skills	5	0	0	5
PSY	1101	Human Relations	3	0	0	3
BUS	1103	Small Business Operations	3	0	0	3
DFT	1114	Blueprint Reading: Electrical	0	0	6	2
ELC	1114	Electrical Safety	3	0	0	3
			22	2	6	25

SECOND QUARTER						
ELC	1112	Direct and Alternating	5	0	12	9
PHY	1102	Applied Science	3	2	0	4
ELC	1124-A	Residential Wiring	4	0	6	6
			12	2	18	19
THIRD QUARTER						
ELC	1124-B	Residential Wiring	1	0	3	2
ELC	1125	Commercial and Industrial Wiring	5	0	12	9
ELN	1118	Industrial Electronics	3	0	6	5
			9	0	21	16
FOURTH QUARTER						
ELC	1113	Alternating Current and Direct Current Machines and Controls	5	0	12	9
ELN	1119	Industrial Electronics	3	0	6	5
ELC	1126	Electrical Safety OSHA	2	0	0	2
			10	0	18	16

TOTAL QUARTER HOURS IN COURSES 76

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000
MAT 0099, 1000

The Electrical Installation and Maintenance student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

ELECTRIC MOTOR REPAIR
SUGGESTED CURRICULUM BY QUARTER

Course Title						
FIRST QUARTER			**C**	**L**	**CL**	**CH**
MAT	1101	Fundamentals of Mathematics	5	0	0	5
*ENG	1101	Reading Improvement	2	0	0	2
ELM	1101	Basic Electric Theory, Terminology & Use	4	0	6	6
ELM	1102	Fundamentals of Electric Motors	4	0	6	6
ELC	1114	Electrical Safety	3	0	0	3
			18	0	12	22
SECOND QUARTER						
PSY	1101	Human Relations	3	0	0	3
ELM	1110	Shaded Pole Induction Motors	2	0	9	5
ELM	1111	Split Phase Induction Motors	2	0	6	4
ELM	1112	Capacitor Start Motors	2	0	3	3
ELM	1113	Universal Motors	2	0	3	3
			11	0	21	18

THIRD QUARTER						
MAT	1102	Algebra	5	0	0	5
ELM	1114	Three Phase Induction Motors	4	0	6	6
ELM	1115	Wound Rotor Induction Motors	3	0	3	4
ELM	1120	Alternators	0	0	3	1
ELM	1130	Auxiliary Shop Procedures	0	0	6	2
ENG	1102	Communication Skills	3	0	0	3
			15	0	18	21
FOURTH QUARTER						
ELM	1121	Direct Current Motors and Generators	3	0	3	4
ELM	1122	Transformers	4	0	6	6
ELM	1123	Motor and Generator Controls	4	0	6	6
ELM	1131	Motor Maintenance Procedures	1	0	3	2
			12	0	18	18

TOTAL QUARTER HOURS IN COURSES 79

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108
MAT 0099, 1000

The Electric Motor Repair student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

ELECTRONIC SERVICING
SUGGESTED CURRICULUM BY QUARTERS

Course Title						
FIRST QUARTER			**C**	**L**	**CL**	**CH**
ELC	1112-A	D.C. Theory and Practice	5	0	15	10
*ENG	1101	Reading Improvement	2	0	0	2
MAT	1101	Fundamentals of Mathematics	5	0	0	5
DFT	1120	Drafting: Electronic Servicing	3	0	3	4
			15	0	18	21
SECOND QUARTER						
ELC	1112-B	A.C. Theory and Practice	5	0	15	10
MAT	1102	Algebra	5	0	0	5
ENG	1102	Communication Skills	3	0	0	3
PHY	1101-A	Applied Science	2	0	0	2
			15	0	15	20

THIRD QUARTER

ELN	1103	Introduction to Control Devices	5	0	15	10
ELN	1125	Radio Receiver Servicing	5	0	0	5
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
PHY	1101-B	Applied Science	1	2	0	2
			16	2	15	22

FOURTH QUARTER

ELN	1127	Television Receiver Circuits and Servicing	10	0	18	16

NUMBER OF HOURS REQUIRED FOR GRADUATION FROM ONE-YEAR PROGRAM 79

Students may desire to graduate from the two-year program. To do so, they must graduate from the four-quarter program, then in September enroll full-time and pursue the fifth, sixth, and seventh quarters to completion, thereby earning a two-year diploma.

FIFTH QUARTER

ELN	1104	Application of Control Devices	5	0	15	10
ELN	1107	Communications	5	0	0	5
ELN	1108	Digital Concepts	5	0	0	5
			15	0	15	20

SIXTH QUARTER

ELN	1105	Industrial Electronics and Instrumentation	5	0	15	10
ELN	1111	Electronic Troubleshooting	3	0	0	3
BUS	1103	Small Business Operations	3	0	0	3
			11	0	15	16

SEVENTH QUARTER

ELN	1106	Maintenance and Analysis of Electronic Systems	5	0	15	10
ELN	1109	Television Broadcasting	5	0	0	5
PSY	1101	Human Relations	3	0	0	3
			13	0	15	18

NUMBER OF HOURS REQUIRED FOR GRADUATION FROM TWO-YEAR PROGRAM 133

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following lists:

ENG 1000, 1108, MAT 0099, 1000

The Electronic Servicing student may make course substitions from appropriate subject areas on a credit-for-credit basis upon approval by the student department chairperson.

HEATING, REFRIGERATION & AIR CONDITIONING
SUGGESTED CURRICULUM BY QUARTERS

	Course Title		C	L	CL	CH
FIRST QUARTER						
MAT	1101	Fundamentals of Mathematics	5	0	0	5
PHY	1101	Applied Science	3	2	0	4
* ENG	1101	Reading Improvement	2	0	0	2
DFT	1116	Blueprint Reading: Air Conditioning	2	0	6	4
AHR	1116	Oil Burner Installation and Service	4	0	6	6
			16	2	12	21
SECOND QUARTER						
AHR	1120	Principles of Refrigeration	6	0	9	9
AHR	1117	Gas Burners, Electric Heat, and Liquid Heat Applications	4	0	3	5
ELC	1101	Applied Electricity	2	0	0	2
WLD	1102	Basic Gas Welding	0	0	3	1
ENG	1102	Communication Skills	3	0	0	3
			15	0	15	20
THIRD QUARTER						
AHR	1122	Commercial Refrigeration	3	0	9	6
AHR	1123	Principles of Air Conditioning	2	0	3	3
AHR	1125	Duct Design and Installation	2	0	6	4
ELC	1102	Applied Electricity	1	0	3	2
AHR	1100-A	Special Problems in Refrigeration	1	0	0	1
			9	0	21	16
FOURTH QUARTER						
AHR	1126	All Year Comfort Systems	3	0	9	6
AHR	1109	Job Planning and Estimating	3	0	0	3
PSY	1101	Human Relations	3	0	0	3
AHR	1128	Automatic Controls	4	0	6	6
			13	0	15	18

TOTAL QUARTER HOURS IN COURSES 75

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108
MAT 0099, 1000

Heating, Air Conditioning and Refrigeration students may make course subscriptions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

MACHINIST TRADE
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
MEC	1101	Machine Shop Theory and Practice	3	0	12	7
MAT	1101	Fundamentals of Mathematics	5	0	0	5
DFT	1201	Drafting: Mechanical I	1	3	0	2
PHY	1101	Applied Science	3	2	0	4
*ENG	1101	Reading Improvement	2	0	0	2
			14	5	12	20
SECOND QUARTER						
MEC	1102	Machine Shop Theory and Practice	3	0	12	7
MAT	1102	Algebra	5	0	0	5
DFT	1202	Drafting	1	3	0	2
PHY	1102	Applied Science	3	2	0	4
ENG	1102	Communication Skills	3	0	0	3
			15	5	12	21
THIRD QUARTER						
MEC	1103	Machine Shop Theory and Practice	3	0	12	7
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
DFT	1105	Blueprint Reading: Mechanical	3	0	0	3
MEC	1115	Metallurgy (Ferrous Metals)	2	3	0	3
PSY	1101	Human Relations	3	0	0	3
			16	3	12	21
FOURTH QUARTER						
MEC	1104	Machine Shop Theory and Practice	3	0	12	7
DFT	1106	Blueprint Reading: Mechanical	3	0	0	3
MEC	1116	Metalurgy (Non-Ferrous Metals)	2	3	0	3
WLD	1102	Basic Gas Welding	0	0	3	1
			8	3	15	14

TOTAL QUARTER HOURS IN COURSES FOR STUDENTS GRADUATING AFTER FOUR QUARTERS..... 76

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108
MAT 0099, 1000

Two quarters of advanced training may be offered to outstanding students after satisfactory completion of the four quarter course of study and upon recommendation of their curriculum instructors.

FIFTH QUARTER						
MEC	1105	Machine Shop Theory and Practice	3	0	15	8
MAT	1123	Machinist Mathematics	3	0	0	3
MEC	1221	Machine Maintenance	2	0	3	3
			8	0	18	14
SIXTH QUARTER						
MEC	1106	Machine Shop Theory and Practice	3	0	12	7
DFT	1203	Drafting: Machanical III	0	6	0	2
MEC	1107	Jigs and Fixtures	2	0	6	4
			5	6	18	13

TOTAL QUARTER HOURS IN COURSES FOR STUDENTS THAT COMPLETE SIX QUARTERS..... 103

The Machinist student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

MASONRY
SUGGESTED CURRICULUM BY QUARTERS

Course Title						
FIRST QUARTER			**C**	**L**	**CL**	**CH**
MAS	1101	Bricklaying I	3	0	21	10
MAT	1112	Building Trades Mathematics	3	0	0	3
DFT	1110	Blueprint Reading: Building Trades	3	0	0	3
			9	0	21	16
SECOND QUARTER						
MAS	1102	Bricklaying II	3	0	21	10
MAT	1113	Building Trades Mathematics	3	0	0	3
DFT	1111	Blueprint Reading and Sketching I	3	0	0	3
			9	0	21	16
THIRD QUARTER						
MAS	1103	Bricklaying III	2	0	21	9
MAS	1113	Masonry Estimating I	1	0	3	2
DFT	1112	Blueprint Reading and Sketching II	3	0	0	3
			6	0	24	14
FOURTH QUARTER						
MAS	1104	Bricklaying IV	2	0	21	9
MAS	1114	Masonry Estimating II	1	0	3	2
DFT	1113	Blueprint Reading and Sketching III	3	0	0	3
			6	0	24	14

TOTAL QUARTER HOURS IN COURSES 60

The Masonry student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

OPERATING ROOM TECHNICIAN
SUGGESTED CURRICULUM BY QUARTERS

Course Title						
FIRST QUARTER			**C**	**L**	**CL**	**CH**
SUR	1101	Clinical Practice I	0	0	12	4
SUR	1102	Introduction and Orientation	5	3	0	6
SUR	1104	Introduction to Microbiology	3	0	0	3
SUR	1114	Principles of Operating Room Techniques	1	0	6	3
BIO	101A	Basic Life Sciences	4	2	0	5
			13	5	18	21
SECOND QUARTER						
SUR	1111	Clincial Practice II	1	0	24	9
SUR	1115	Pharmacology for Operating Room	2	0	0	2
SUR	1116	Surgical Procedures I	9	0	0	9
BIO	101B	Basic Life Sciences	4	2	0	5
			16	2	24	25
THIRD QUARTER						
SUR	1121	Clinical Practice III	1	0	24	9
SUR	1127	Surgical Procedures II	9	0	0	9
			10	0	24	18
FOURTH QUARTER						
SUR	1122	Clinical Practice IV	0	0	36	12
SUR	1128	Surgical Procedures III	4	0	0	4
			4	0	36	16

TOTAL QUARTER HOURS IN COURSES 80

The Operating Room Technician student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

PARTS COUNTERMAN
SUGGESTED CURRICULUM BY QUARTERS

Course Title						
FIRST QUARTER						
*ENG	1101	Reading Improvement	2	0	0	2
APC	1110	Safety and Industry Familiarization	2	0	0	2
APC	1111	Parts Nomenclature and Identification	4	4	0	6
APC	1112	Tools Identification	1	0	0	1
APC	1101	Catalog, Specification Book & Pricing	5	0	9	8
APC	1113	Number Reading	2	0	0	2
			16	4	9	21
SECOND QUARTER						
ENG	1102	Communication Skills	3	0	0	3
BUS	1231	Sales Development & Inventory Procedures	1	4	0	3
MAT	1101	Fundamentals of Math	5	0	0	5
APC	1102	Catalog, Specification Book & Pricing	5	0	12	9
			14	4	12	20
THIRD QUARTER						
MAT	1110	Math for Parts Counterman	5	0	18	11
PSY	1101	Human Relations	3	0	0	3
APC	1104	Engine Theory	1	0	0	1
APC	1105	Systems: Cooling, Oil, Fuel & Brakes	2	0	0	2
			11	0	18	17
FOURTH QUARTER						
BUS	1103	Small Business Operations	3	0	0	3
ENG	1109	Microfiche Reading Techniques	2	4	0	4
APC	1106	Introduction to Parts Dealers	2	3	0	3
APC	1103	Practicum	1	0	15	6
			8	7	15	16

TOTAL QUARTER HOURS IN COURSES 74

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:
ENG 1000, 1108
MAT 0099, 1000

The Parts Counterman student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairman.

PRACTICAL NURSE EDUCATION
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
NUR	101	Fundamentals of Nursing	6	6	0	9
BIO	101	Basic Life Sciences	4	2	0	5
SOC	102H	Principles of Sociology (For Health Professions)	3	0	0	3
NUT	101	Basic Nutrition	3	0	0	3
MAT	114	Basic Math for Health Professions	3	0	0	3
			19	8	0	23
SECOND QUARTER						
NUR	102	Medical-Surgical Nursing I	8	0	15	13
NUR	110	Pharmacology	3	0	0	3
PSY	104	Human Relations	3	0	0	3
			14	0	15	19
THIRD QUARTER						
NUR	103	Medical-Surgical Nursing II	9	0	15	14
PSY	120	Human Growth & Development	3	0	0	3
ENG	101	Grammar	3	0	0	3
			15	0	15	20
FOURTH QUARTER						
NUR	131	Nursing Seminar	3	0	0	3
NUR	104	Maternal Child Health Nursing I	8	0	15	13
+BIO	206	Microbiology	2	2	0	3
			13	2	15	19

TOTAL QUARTER HOURS IN COURSES FOR PRACTICAL NURSES 78

EXIT POINT FOR PRACTICAL NURSES

TEACHER ASSISTANT
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
* ENG	101	Grammar	3	0	0	3
MAT	100R	Computational Skills	5	0	0	5
PSY	101	Introduction to Psychology	5	0	0	5
SOC	101	Introduction to Sociology	5	0	0	5
BUS	102	Beginning Typewriting	2	3	0	3
			20	3	0	21

SECOND QUARTER						
ENG	102	Composition	3	0	0	3
EDU	203	Exceptional Child	3	0	0	3
BUS	103	Intermediate Typewriting	2	3	0	3
PSY	115	Child Growth & Development: Prenatal-Early Childhood	3	0	0	3
EDU	231	Creative Activities	5	0	0	5
			16	3	0	17
THIRD QUARTER						
ENG	103	Report Writing	3	0	0	3
EDU	111	Language Arts Techniques - I	3	0	0	3
EDU	115	A-V and Media Instruction	3	2	0	4
PSY	116	Child Growth and Development: Middle Childhood-Adolescence	3	0	0	3
EDU	106	Practicum in the Elementary School or Elective	1	0	15	6
			13	2	15	19
FOURTH QUARTER						
ENG	204	Oral Communications	3	0	0	3
HEA	110	First Aid and Medical Terminology	2	2	0	3
PSY	112	Personality Development	3	0	0	3
HEA	105	Family, School, and Community Health	3	0	0	3
EDU	107	Practicum in Pre-School Experiences or Elective	1	0	15	6
			12	2	15	18

TOTAL QUARTER HOURS IN COURSES 75

*In the event students, as a result of placement tests or grades, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 100R-1, 100R-2, 100R-3, 100R-4, 100G, 100G-A, 101-A, 102-A, MAT 099

The Teacher Assistant student may select elective credits from the list of recommended electives or from other related courses, and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

RECOMMENDED ELECTIVES:

BUS 110, 112, 134
ECO 102
ENG 104, 105, 106
PSY 206
SSC 101

WELDING
SUGGESTED CURRICULUM BY QUARTERS

Course Title			C	L	CL	CH
FIRST QUARTER						
WLD	1141	Beginning Welding	5	0	15	10
MAT	1101	Fundamental of Mathematics	5	0	0	5
DFT	1104	Blueprint Reading: Mechanical	3	0	0	3
*ENG	1101	Reading Improvement	2	0	0	2
			15	0	15	20
SECOND QUARTER						
WLD	1142	Intermediate Welding	5	0	15	10
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
DFT	1117	Blueprint Reading: Welding	3	0	0	3
ENG	1102	Communication Skills	3	0	0	3
			16	0	15	21
THIRD QUARTER						
WLD	1124	Pipe Welding	3	0	12	7
WLD	1123	Inert Gas Welding	1	0	3	2
WLD	1112	Mechanical Testing and Inspection	1	0	3	2
DFT	1118	Pattern Development and Sketching	3	0	0	3
PSY	1101	Human Relations	3	0	0	3
			11	0	18	17
FOURTH QUARTER						
WLD	1122	Commercial and Industrial Practices	3	0	9	6
WLD	1125	Certification Practices	3	0	6	5
MEC	1112	Machines Shop Processes	1	0	3	2
BUS	1105	Industrial Organizations	3	0	0	3
			10	0	18	16

TOTAL QUARTER HOURS IN COURSES 72

*In the event entering students, as a result of placement tests, are found to be deficient in English and math skills, they will be required to take the appropriate courses from the following list:

ENG 1000, 1108
MAT 0099, 1000

The Welding student may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

CERTIFICATE

NURSES' ASSISTANT
ONE QUARTER OR THREE MONTHS

Course Title			C	L	SH	CH
FIRST QUARTER						
NUR	1100	Nurses' Assistant Theory and Clinical Practice	9	0	21	16

A course designed to prepare qualified men and women to give effective bedside nursing care to selected patients. Students are taught the role of the nurses' assistant, concepts of health and illness, functional relationships within the nursing care facility, fundamentals of effective interpersonal relationships, basic nursing procedures related to the daily needs of patients, and selected special procedures. Clinical experiences in hospitals and nursing homes provide the student with the opportunity to apply the techniques learned in the classroom.

SURVEYING
TECHNICAL SPECIALTY
SUGGESTED CURRICULUM

Course Title			C	L	SH	CH
BASIC COURSES						
CIV	101	Surveying	2	0	6	4
MAT	101	Algebra I	5	0	0	5
CIV	102	Surveying	2	0	6	4
DFT	101	Technical Drafting	0	0	6	2
CIV	103	Surveying	2	0	6	4
MAT	102	Trigonometry	5	0	0	5
CIV	204	Surveying	2	0	6	4

Students who wish to acquire additional surveying skills may take any of the following courses:

ELECTIVE COURSES

CIV	110	Surveyor Practices	1	0	0	1
MAT	103	Algebra II	5	0	0	5
FOR	208	Forest Surveying	2	0	3	3
CIV	223	Codes, Contracts, and Specifications	2	0	0	2

COURSE DESCRIPTIONS

COURSE PREFIX IDENTIFICATION

AGRICULTURE

AGR 103 Feeding and Management 2 0 2
A study of applied principles and concepts of animal nutrition. Problems associated with feeding livestock, nutritional diseases, balancing rations, feed additives, feedstuffs, and anatomy and physiology of the digestive systems of farm animals. The study includes management and economic problems associated with the feeding and marketing of livestock.

AGR 105 Pastures and Forage Crops 3 2 4
A study of the major grasses and legumes of economic importance in North Carolina. Attention will be given to management, soil types, fertilization, harvesting, and nutrient value.

AGR 107 Farm Records and Taxes 3 0 3
An introductory course to accounting methods related to farm business which acquaints the students with the terminology and the basic principles and techniques used in recording transactions. Practical application of the principles learned are made by working with actual farm situations. A study of taxes as related to farm income including tax forms, deductions, depreciation, and tax schedules applicable to farmers.

AGR 119 Techniques of Welding 2 3 3
This course includes a study of principles of oxyacetylene and electrical welding, cutting, and brazing; principles, procedures, safety precautions, and experience in using oxyacetylene and arc welding equipment; and projects to develop skill in the use of equipment. Also includes a study of metals, rods, gases, and special electrical welding machinery.

AGR 121 Crop Production 3 2 4
A study of the characteristics of field crops relative to varieties, environmental factors, rotations, fertilization, control of pests, and cultural practices pertinent to crop production.

AGR 125 Animal Science 5 2 6
An introductory animal science course covering the fundamental principles of livestock production. A study of the animal body and the basic principles of reproduction, genetics, growth, fattening, and digestion; and of the selection, feeding, improvement, processing, and marketing of livestock.

AGR 127 Animal Nutrition 3 2 4
A course dealing with the principles of nutrition and their application to feeding practices in cattle, horses, sheep, and swine production in North Carolina.
Prerequisite: AGR 125

AGR 128 Farm and Home Construction 2 3 3
This course deals with the fundamentals of farm carpentry, fences, concrete, and masonry. Part of the course gives students an opportunity to learn and practice home construction projects such as kitchen cabinets. The course also includes a study of farm water needs and waste disposal. Attention is given to planning farm water and plumbing systems and their proper care and maintenance.

AGR 135 Agricultural Law 3 0 3
A course designed to acquaint the agricultural student with certain fundamentals and principles of law, including contracts, agency, and negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales, suretyship, bailments, and real property.

AGR 136 Agricultural Math 5 0 5
This course stresses the fundamental mathematics operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent use of mathematics in the field of business.

AGR 143 New Sources of Farm Income 2 0 2
This is a study of new areas of production that are not practiced in the student's present farming program. The farm enterprise system will be analyzed and new enterprises suggested. Provisions of contract farming in the production of poultry, livestock, and fruits and vegetables for the processing industry are also included.

AGR 149 Introduction to Plant Science and Horticulture 3 2 4
An introduction to botany as applied to higher plants. The fundamental principles of plant processes, reproduction (sexual and asexual), growth and development. The application of plant processes to certain commercially grown Field and Horticultural Crops.

AGR 150 General Horticulture 3 2 4
This course deals with horticulture principles and the application of plant science fundamentals to horticultural practices.

AGR 155 Introduction to Food Science 3 2 4
An introductory study of various phases of food science and processing. Attention will be given to development, size, distribution and future of the processing industry. Basic principles of food preservation and unit operations covering canning, freezing, dehydration, concentration and fermentation will be stressed.

AGR 170 Plant Science 5 2 6
An introductory general botany and crop science course covering the fundamental principles of the reproduction, growth, functions, and development of seed-bearing plants with application to certain commercially important plants in North Carolina.

AGR 185 Soil Science and Fertilizers 5 2 6
A course dealing with the basic principles of efficient classification, evaluation, and management of soils; care, cultivation and fertilization of the soil; and conservation of soil fertility.

AGR 187 Fertilizers and Lime 3 2 4
A review of the source, function, and use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity and liming materials; and the application of fertilizer and liming materials.

AGR 201 Agricultural Chemicals (Pesticides) 3 2 4

A study of agricultural chemicals and their importance; the ingredients formulation, and application of farm chemicals; and the effective and safe utilization of chemicals in agricultural pest control. Major emphasis is placed on weed identification and on chemicals utilized for weed control. Part of the course is devoted to chemicals other than herbicides, such as insecticides and fungicides.

Prerequisite: AGR 145 or permission of instructor.

AGR 203 Pesticide and Fertilizer Application 3 2 4

A study of and practical exercise in the correct application of pesticides and fertilizers. Economics of custom application and equipment, precautions, and legal aspects of application are presented.

Prerequisites: AGR 145 and AGR 165

AGR 204 Agricultural Economics and Farm Records 3 2 4

An introduction to economics, the functions of the economic system, and agriculture's role in the economy. The study of economic principles as applied to the decision-making process in the analysis of farm records is also included.

AGR 205 Agricultural Marketing 3 2 4

An analysis of the functions of marketing in the economy; a survey of the problems marketing faces; and a review of the market structure and the relationship of local, terminal, wholesale, retail, and foreign markets. Problems in the operations of marketing firms, including buying and selling, processing, standardization and grading, risk-taking and storage, financing, efficiency, and cooperation; and discussions of procedures for marketing commodities such as grain, cotton, livestock and tobacco are included.

Prerequisite: AGR 104 or permission of instructor

AGR 215 Farm Machinery Repair and Maintenance 3 2 4

Selection, care, and repair of large units of farm equipment and operating principles of self-propelled and tractor-drawn equipment will be studied in the classroom and in the field. Equipment such as balers, combines, corn pickers, cotton pickers, and peanut harvesters will be included in the study.

AGR 218 Agricultural Mechanization 3 2 4

A study of farm machinery management, labor saving devices, and the economics of selection and operation of farm machinery. Includes a study and evaluation of feed grinders and mixers, storage facilities, materials handlings systems, and other labor saving devices.

AGR 222 Farm Electrification 3 2 4

A study of the basic principles and systems of farm electrification and their application to agricultural production, with emphasis on equipment for controlling the utilization of electricity.

AGR 223 Livestock Production 3 2 4

A study of the basic principles of livestock production, including the breeding, feeding, care, and management of farm animals.

AGR 228 Plant and Animal Diseases 3 2 4
A study of the germ theory of disease as applied to plant and animal production. Common plant and animal diseases and their symptoms, prevention, and control measures are included in the study.

AGR 245 Crop Insects 3 2 4
A study of common local crop insects, their economic importance, identification, life cycles, and hosts. Student field trips to study insect damage an integral part of the course.

AGR 247 Pesticides and Their Use in Home and Community 3 2 4
A study of the use of pesticides including their function, ingredients, beneficial aspects and environmental hazards, with major emphasis on safe application and handling. Biological and other alternative methods of pest control are studied.

AGR 254 Plant Propagation 3 2 4
A study of basic concepts and principles of sexual and asexual propagation. Techniques are learned through practical exercises conducted in laboratory sessions. Emphasis is given to those propagation methods widely utilized in the industry.

AGR 272 Tobacco Production 3 2 4
A review of the economic importance of tobacco in North Carolina, a detailed study of certain aspects of the production and marketing of tobacco, and a brief look at the processing and manufacturing phases.
Prerequisite: AGR 170

AGR 273 Corn, Peanut and Soybean Production 3 2 4
The production, marketing, and improvement of corn, peanuts, and soybeans will be covered in this course. The latest research information on seed, varieties, fertilization, disease, weed control, cultural practices, equipment, harvesting and marketing will be stressed.

AGR 278 Weed Identification and Control 3 2 4
A study of the identification and control of annual and perennial weeds of economic importance in North Carolina.

AGR 279 Farm Forestry 3 2 4
A course dealing with the fundamentals of forestry and farm forestry problems, including planting, thinning, protecting, harvesting, and marketing.

AGR 285 Soil Fertility 3 2 4
A course dealing with soil fertility principles and the application of these principles to North Carolina soils, soil fertility evaluation, and soil conservation practices.

AGR 290 Soil and Water Conservation 3 2 4
An introduction to soil and water conservation, soil, water, and plant conservation; the available resources to carry out soil and water conservation measures; and the relationship of specialized knowledge in agronomy, biology, economics, engineering, soils, forestry, and recreation are included.

AGR 296 Agricultural Programs and Agencies 3 0 3
A review of public agricultural programs and agencies that provide services for agricultural producers, including their objectives, organization, functions, and services.

AGR 297 Agricultural Policy and Programs 3 0 3
This course is concerned with the processes of agricultural policy formation in a democratic society and the role of individual and group actions in the development of public programs. An analysis of policies and programs will be reviewed including the relationship to demand, supply, income, population, the nature of agricultural production and social welfare.

AIR CONDITIONING, HEATING, AND REFRIGERATION

AHR 101 Air Conditioning and Refrigeration 3 3 4
This course includes an introduction to the air conditioning and refrigeration field and to terminology relating to heating and cooling systems. Topics included are the basic laws of refrigeration, heat and heat transfer methods, servicing tools and equipment, and tubing and fittings. Shop practice will be given in operations such as tube bending, flaring, swaging, and soldering.

AHR 106 Architectural Mechanical Equipment 3 3 4
A general study of heating, air conditioning, plumbing and electrical equipment, materials and symbols, and building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings prepared by mechanical engineers and coordination of mechanical and, electrical features with structural and architectural designs are included.

AHR 1100A Special Problems in Refrigeration 1 0 0 1
AHR 1100B Special Problems in Refrigeration 2 0 0 2
A special problems course which affords all air conditioning, and refrigeration students an opportunity to explore any problem that may arise in other courses given in the air conditioning, heating, and refrigeration curriculum.

AHR 1101 Automotive Air Conditioning 2 0 3 3
A general introduction to the principles of refrigeration. Includes a study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, proper handling of refrigerants in charging the system, use of testing equipment in diagnosing trouble, and efficiency tests and general maintenance work.

AHR 1109 Job Planning and Estimating 3 0 0 3
A course which provides students with opportunities for estimating loads and capacity of refrigeration and cooling units through the use of manuals, tables, and charts. Students will learn to determine and recommend the adequate sizing of refrigeration and cooling units for specific uses in homes or industry.

AHR 1116 Oil Burner Installation and Service 4 0 6 6
A study of the principles of heating, terminology, use and repair of equipment, and maintenance and servicing of heating units. Diagnosing troubles within installation and temperature and thermostat controls are also included.

AHR 1120 Principles of Refrigeration 6 0 9 9
An introduction to the principles of refrigeration, terminology, use and care of tools and equipment, and identification and functions of the component parts of a system. Other topics included are the basic laws of refrigeration; characteristics and comparison of the various refrigerants, and the use and construction of valves, fittings, and basic controls. Practical work includes tube bending, flaring and soldering. Standard procedures and safety measures for the use of special refrigeration service equipment and the handling of refrigerants are an integral part of the course.

AHR 1122 Commercial Refrigeration 3 0 9 6
Servicing of conventional, hermetic, and absorption commercial refrigeration systems; cabinet care, controls, and system, maintenance in refrigerators, freezers, and window air conditioning units; and commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units, and mobile refrigeration systems are studied. The use of manufacturers' catalogs in sizing and matching system, components and a study of controls, refrigerants, and servicing methods are included. The American Standard Safety Code for refrigeration is studied and its principles practiced.
Prerequisite: AHR 1121.

AHR 1123 Principles of Air Conditioning 2 0 3 3
This course includes a study of the selection of various heating, cooling, and ventilation systems and the investigation and control of factors affecting air cleaning in air movement, temperature and humidity. Psychrometric charts are used in determining optimum temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of duct work is performed as needed.
Prerequisite: AHR 1121.

AHR 1125 Duct Design and Installation 2 0 6 4
An introduction to the principles of duct design installation and types of materials used. The sizing of duct for the amount of air needed for heating and air conditioning is also included.

AHR 1126 All-Year Comfort Systems 3 0 9 6
Auxiliary equipment used with refrigeration systems to provide heating and cooling for all-year comfort with be studied and set up in the laboratory. Included will be oil fired systems, gas fired systems, water circulating systems, and electric resistance systems. Installations of heat pumps and servicing techniques will be studied. Reversing valves, special types of thermostatic expansion valves, systems of de-icing coils, and electrical wiring and controls are also included.
Prerequisite: AHR 1123.

AHR 1128 Automatic Controls 4 0 6 6
A study of the various control thermostat systems used by manufacturers for the installation of their equipment. This course includes the resetting and calibration of control units used on the various heating systems, and the principles of how these controls work.

AHR 1117 Gas Burners, Electrical Heat, and Liquid Heat Applications 4 0 3 5

An introduction to the principles of heating with the use of gas, electric, or liquid heat units. Installation, servicing, and corrective maintenance techniques, of heating units are included.

BANKING AND FINANCE

AIB 111 Business Administration 4 0 4

In this course, emphasis is placed on the managerial responsibility of coordinating carefully the many facets of a business enterprise. It also stresses the background of administration, financial management, production, labor-management relations, marketing, coordination and control, and public relations problems.
Prerequisite: None.

AIB 120 Accounting I 4 0 4

This course is based on a new, second-edition text that supplies a comprehensive treatment of all up-to-date principles and also gives the student ample opportunity through examples, illustrations, and correlated activities to learn how the principles are applied. End-of-unit summaries have special sections for both principles and managerial implications.
Prerequisite: None.

AIB 121 Accounting II 4 0 4

The content of this course was selected with two major objectives in mind: immediate on-the-job usefulness, and contribution to the student's future growth in the banking field. The course consists of a detailed study of balance sheet items, covers manufacturing accounting and product costing, and includes an appropriate study of cost analysis for managerial decisions.
Prerequisite: AIB 121

AIB 123 Financing Business Enterprise 4 0 4

Stress is placed on the difference between lending and investing, and on the fact that investing in a corporation and financing a corporation are different aspects of the same subject. In this course, the material is presented from the viewpoint of the corporate treasurer who must safeguard the financial future of his corporation.
Prerequisite: None.

AIB 202 Principles of Bank Operation 4 0 4

This course presents the fundamentals of bank functions in a descriptive fashion so that the beginning banker may view his chosen profession in a broad (and operational) perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement.
Prerequisite: None.

AIB 203 Bank Investments 4 0 4

Because the bank's needs for primary reserves and loanable funds limit the funds available for investment, this course describes the nature of such funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random

and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings.
Prerequisite: None.

AIB 204 Bank Management by Objectives 0 2 1
This middle management seminar is designed to assist bank officers in learning how to translate bank problems into realistic goals, for the individual and the bank, through the management-by-objectives system. Cases and outside readings are used in this seminar. It can be presented as a brief, intense workshop or as an eight-session seminar.
Prerequisite: None.

AIB 205 Bank Management 4 0 4
This course is based on the second edition of the text that presents new trends which have emerged in the philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management. Since case study is becoming well established as an effective management learning technique, this text also introduces the use of cases as a new element.
Prerequisite: None.

AIB 206 Bank Letters and Reports 4 0 4
This course is designed for those bank officers, supervisors, and employees who dictate or review correspondence. Since bank letters are actually public relations documents, all persons should be familiar not only with the mechanical forms of bank letters but also with the psychological principles that help the letter writer achieve best results. The course reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters.
Prerequisite: None.

AIB 207 International Banking 4 0 4
The second edition of this text is an introduction to a vast field for those working in international departments, as well as for those involved in the domestic activities of their banks. The essential objective of this course is to present the basic framework and fundamentals of international banking; how money is transferred from one country to another, how treade is financed, what the international agencies are and how they supplement the work of commercial banks, and how money is changed from one currency to another.
Prerequisite: None.

AIB 208 Conference Planning & Leadership 0 2 1
This course is centered on a specific phase of the problem of human understanding. It is concerned with an important responsibility of management: to communicate and to coordinate ideas in the most effective way possible. It gives consideration to the dynamics of human interaction in groups convened to solve problems and make decisions. The essentials of parliamentary procedure are also stressed, thus presenting an effective technique for achieving consensus and formalizing and recording the decision-making process.
Prerequisite: None.

AIB 209 Installment Credit 4 0 4
In this course, the techniques of installment lending are presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the most efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending.
Prerequisite: None.

AIB 210 Money and Banking 4 0 4
This course stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment has been kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and the structuring of portfolios.
Prerequisite: None.

AIB 212 Planning Management Development 0 2 1
This middle management seminar is designed to assist bank officers who are responsible for the planning, recruiting, and development of bank management personnel. Cases and outside readings are used in this seminar. It can be presented as a brief, intense workshop or as a twelve-session seminar.
Prerequisite: None.

AIB 213 Trust Functions 4 0 4
This new course presents a complete picture of the services rendered by institutions engaged in trust business. Providing an introduction to the services and duties involved in trust operations, the course is intended for all bankers, not only those who are engaged in trust business. It endeavors to keep clear the distinction between business and legal aspects of trust functions.
Prerequisite: None.

AIB 214 Effective Speaking 4 0 4
In this course, the student is given an opportunity to study all phases of speech situations. Although the text is directed primarily to the study seeking to give an account of himself on the public platform, other speech situations have not been neglected. Having studied the basic principles involved in organizing and presenting a speech, he is given suggestions to aid him in developing his speaking ability in such situations as conferences, panel discussions, radio, and television.
Prerequisite: None.

AIB 219 Credit Administration 4 0 4
This course, directed toward the executive level, concerns itself partly with a statement and a discussion of factors influencing and determining loan policy. Methods of credit investigation and analysis, credit techniques, specific credit problems, and regular as well as unusual types of loans are discussed.
Prerequisite: None.

AIB 231 Savings and Time Deposit Banking 4 0 4
This course reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions. It begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flows of income to capital investment.
Prerequisite: None.

AIB 232 Agricultural Finance 4 0 4
Reflecting the rapid growth of the off-farm agribusiness sectors (the suppliers of farm inputs), this course emphasizes general principles associated with the evaluation of management and the use of capital, rather than stressing the examination of land and labor resources, which are more closely aligned with agricultural production. An understanding of agricultural finance should help the banker in satisfying the credit needs of modern agriculture.
Prerequisite: None.

AIB 233 Analyzing Financial Statements 4 0 4
A fourth edition of the textbook is used for this course and is organized into two main sections: Characteristics of Financial Statements and Financial Statement Analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis.
Prerequisite: None.

AIB 234 Loss Prevention 0 2 1
This seminar focuses on check cashing, check swindles, bank holdups, and security procedures.
Prerequisite: None.

AIB 235 Loan & Discount 3 0 3
This seminar teaches bank employees the essential facts about promissory notes, including calculating interest and discounting commercial paper; guaranties; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks, and the concepts of attachment, perfection, priority, default, and foreclosure.
Prerequisite: None.

AIB 236 Home Mortgage Lending 4 0 4
This course approaches the subject from the viewpoint of the mortgage loan officer who seeks to develop a sound mortgage portfolio. A picture of the mortgage market is presented first, then the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing, and finally the obligations of the mortgage loan officer in overall portfolio management.
Prerequisite: None.

AIB 237 Selling Bank Services 0 2 1
Teaches tellers and new-accounts personnel how to recognize and meet bank customer needs: checking accounts, savings services, loans to individuals, safe deposit boxes, travelers checks and cross selling.
Prerequisite: None.

AIB 239 Bank Public Relations & Marketing 4 0 4
This course discusses the basis of public relations, both internal and external, and seeks simply to explain the why, the what, and some of the how of public relations and marketing. It is intended as an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing.
Prerequisite: None.

AIB 259 Law & Banking 4 0 4
An introduction to basic American law, presenting the rules of law which underlie banking. Topics include jurisprudence, the courts system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, corporations, sales of personal property, commercial paper, bank deposits and collections, documents of title, and secured transactions. Emphasis is on the Uniform Commercial Code.
Prerequisite: None.

AIB 272 Supervision & Personnel Administration 4 0 4
This course is designed to aid first-line supervisors in making a smooth transition from expert in a particular task to the role of a supervisor who must produce results through the efforts of other people. In this role, the first-line supervisor must reflect management attitudes and carry out management policies while at the same time inspiring his group to achieve friendly cooperation and maximum production. It should be recognized that the same principles are involved at every level of supervision within the organization.
Prerequisite: None.

PARTS COUNTERMAN

APC 1101 Cataloging, Specification Book, and Pricing 5 0 9 8
Introduction to and use of jobber catalogs, specification books, prices and interchange books.

APC 1102 Cataloging, Specification Book, and Pricing 5 0 12 9
A continuation of APC 1101 with additional emphasis on jobber activities followed by more work in the dealer type catalog and sheets. The continuous change of models and cataloging call for much work with and knowledge of cataloging systems. Current films and tapes supplied by various manufacturers explaining and up-dating these operations are used.
Prerequisite: APC 1101.

APC 1103 Practicum 1 0 15 6
Practicum experiences will include receiving, checking, and stocking parts. Students will work the parts counter in all aspects including issuing parts, or-

dering by phone, charging out repair orders, pricing tickets and using a complete inventory control system.

APC 1104 Engine Theory 1 0 0 1
Detailed instruction on engine theory to acquaint the student with the basic operation of the engine.

APC 1105 Systems: Cooling, Oil Fuel & Brakes 2 0 0 2
Detailed instruction on cooling, oil, fuel, and brakes systems to acquaint the student with their basic operation and relationship to the engine.

APC 1106 Introduction to Parts Dealers 2 3 0 3
An introduction to dealer type catalogs and sheets pertaining to different agencies that use parts counterman. A continuous change of models and cataloging calls for working with and knowledge of cataloging systems. Current films and tapes are supplied by various manufacturers explaining and up-dating these operations.

APC 1110 Safety & Industry Familiarization 2 0 0 2
An introduction to the parts business and familiarization with the automotive industry. A study of the safety rules and regulations set forth by the Occupational Safety and Health Act of 1969.

APC 1111 Parts Nomenclature and Identification 4 4 0 6
Nomenclature and identification of engine, chassis, and body parts is covered extensively in class and labs.

APC 1112 Tools Identification 1 0 0 1
Nomenclature and identification of tools and fasteners commonly handled by the parts person.

APC 1113 Number Reading 2 0 0 2
A course designed to improve the accuracy of reading and transferring numbers by reducing the number of eye fixations required to read a series of figures.

ARCHITECTURE

ARC 106 Architectural Drafting 2 6 4
A course designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting included are the use of drafting equipment, lettering pictorial sketching, geometric construction, and orthographic instrument drawing of principal views. Projection problems dealing with principles of descriptive geometry involving points, lines, planes, and solids, and the principles of isometric, obliques, and perspective drawings are included. Applications of descriptive geometry are used in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections, and developments.

ARC 107 Architectural Drafting 2 6 4
This course includes the development of techniques in architectural lettering, symbols, dimensioning, freehand and instrument drafting, and the development of a complete set of working drawings for a residence, with construction

details and the use of appropriate material symbols and connections. Section, scale details, and full-size details will be prepared from preliminary sketches. Applications of descriptive geometry are used in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections, and developments.
Prerequisite: ARC 106.

ARC 108 Architectural Drafting 0 9 3
An in-depth approach to the study of architectural drafting. Development of techniques in architectural lettering, dimensioning, freehand sketching, and instrument drawing, and drawings of construction details, using appropriate material symbols will be included. A continuation of ARC 107, this course includes an introduction to commercial working drawings. Working drawings, including plans, elevations, sketches, scale details, and full-size details will be prepared from preliminary sketches.
Prerequisites: ARC 107, AHR 106, and CIV 105.

ARC 201 Architectural Design I 3 9 6
Basic design principles, development of design as it relates to the detail, structure and aestetic functions of buildings, design presentations, and architectural models, group and individual problems in design.
Prerequisite: ARC 107

ARC 202 Environmental Design 2 3 3
Design principles of regional and city planning, research reports, maps, and problems in environmental design.
Prerequisite: ARC 107

ARC 220 Architectural Drafting 2 9 5
This course includes commercial working drawings; materials used in commercial buildings; systems of construction; and drawing of structural plans and details as prepared for building construction, including steel, concrete, and timber structural components. Appropriate details and drawings necessary for construction will be studied. Reference materials will be used to provide the draftsman with skills and knowledge in locating data and in using handbooks.
Prerequisite: ARC 108.

ARC 221 Architectural Drafting 2 9 5
Group projects will involve the coordination of complete sets of working drawings for commercial work. Consideration is given to coordination of mechanical and electrical features with structural and architectural components. A two-week problem in model building or architectural presentation work is included.
Prerequisite: ARC 220.

ARC 222 Architectural Drafting 2 9 5
Preparation of a complete set of working drawings for the architectural structure, coordinating floor plans, elevations, wall sections, and details. Site and landscaping plans will be studied and drawn. Final assembly of the complete document for construction purposes will be made.
Prerequisites: ARC 221, CIV 101, and DFT 235.

ARC 233 Office Practice Seminar 2 0 2
A study of the professional relationship of the architectural firm to clients, contractors, suppliers, consultants, and other architects. Ethnics of the profession as applicable to the draftman's role in the architectural firm will be emphasized.

AUTOMOTIVE BODY REPAIR

AUT 1111 Auto Body Repair 3 0 12 7
Basic principles of automobile construction, design, and manufacturing. A thorough study of angles, crown, and forming of steel into the complex contour of the present day vehicles. The student applies the basic principles of straightening, aligning, and painting of damaged areas.
Prerequisite: None.

AUT 1112 Auto Body Repair 3 0 12 7
A thorough study of the requirements for a metal worker, including the use of essential tools, forming fender flanges and beads, and straightening typical auto body damage. The student begins acquiring skills such as shaping angles, crowns, and contour of the metal of the body and fenders. Metal working and painting.
Prerequisites: AUT 1111, WLD 1101, PHY 1101, MAT 1101.

AUT 1113 Metal Finishing and Painting 3 0 12 7
Development of the skill to shrink stretched metal, soldering and leading, and preparation of the metal for painting. Straightening of doors, hoods, and deck lids; fitting and aligning. Painting fenders and panels, spot repairs, and complete vehicle painting; the use and application of power tools.
Prerequisites: AUT 1112, WLD 1105.

AUT 1114 Body Shop Applications 3 0 21 10
General introduction and instruction in the automotive frame and front end suspension systems, the methods of operation and control, and the safety of the vehicle. Unit job application covers straightening of frames and front wheel alignment. The student applies all phases of training. Repair order writing, parts purchasing, estimates of damage, and developing the final settlement with the adjuster.
Prerequisites: AUT 1115, PHY 1102, DFT 1101.

AUT 1115 Trim, Glass and Radiator Repair 2 0 9 5
Methods of removing and installing interior trim; cutting, sewing and installing headlinings, seat covers, and door trim panels; painting of trim parts and accessories. Glass removal, cutting, fitting, and installation. The student gains a thorough knowledge of the engine cooling system and repairs and replaces damaged cooling system components. Tests are made to insure normal engine cooling operation.
Prerequisites: AUT 1112, WLD 1105.

BIOLOGY

BIO 101 Basic Life Sciences 4 2 0 5
This course presents the student with a foundation of facts and principles in the normal structure and related functioning of the following body systems: skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine integumentary, nervous, and special sense organs. Presents principles and concepts of the physiology and immunology. Presentation of the normal body as a basis for understanding variations from the normal.

BIO 107 Anatomy and Physiology I 4 2 0 5
A study of the structure and normal function of the human body with man identified as a living organism composed of living cells, tissues, organs, and systems. Included are the basic physiologic aspects of skin, the skeletal, respiratory, and urinary systems. The laboratory portion includes relevant experiments to augment the student's learning of body structure and functions.

BIO 108 Anatomy and Physiology II 4 2 0 5
A continuation of the study of the structure and normal function of man as a living organism. Special emphasis is on the circulatory, lymphatic, digestive, nervous, endocrine, reproductive systems, special senses, fluid and electrolyte balance. Laboratory experiences include study of models and small animal dissection for insight into comparative structure and function of man.

BIO 201 Integrated Science I 4 2 0 5
An introductory study of the basic principles of chemistry and its applications to the understanding of body functions including the anatomy and physiology of the cell and integument, endocrine, reproductive, and respiratory systems. In addition, pathogenic agents of each system will be studied.

BIO 202 Integrated Science II 4 2 0 5
A continuation of Integrated Science I (BIO 201); considers basic chemistry, anatomy, and physiology of the circulatory, lymphatic, urinary, and digestive systems. Fluids, electrolytes and acid-base balance are also studied.

BIO 203 Integrated Science III 4 2 0 5
A continuation of Integrated Science II (BIO 202); considers basic chemistry, anatomy and physiology of the special senses, nervous, skeletal, and muscular systems, and the relationship of these to health and disease.

BIO 206 Microbiology 2 2 0 3
A study of basic microbiology and its relationship to health and disease of humans, including basic laboratory practice, microbial physiology and environment, and medical and applied microbiology.

BIO 208 Pathology 3 0 0 3
A detailed study of various diseases with emphasis on the ones most commonly seen in the radiology department. Radiographic appearance of the disease and the effect on radiographic exposure required for accurate visualization will be dealt with in depth.
Prerequisite: BIO 108.

BUSINESS

BUS 100 Business Education Orientation 1 0 1
An orientation to the business community; emphasis on employment opportunities in the secretarial and clerical fields, entry level job requirements, services of local employment agencies and personnel departments, and procedures to follow in obtaining employment. Activities will include guest speakers from the business community and the business education department and field trips to local business offices.

BUS 101 Introduction to Business 3 0 3
A survey of the business world with particular attention devoted to the structure of the various types of business organizations, methods of financing, internal organization, and management.

BUS 102 Beginning Typewriting 2 3 3
Emphasis on study of the keyboard, mechanics of the typewriter necessary for the acquisition of elementary typewriting skills, and development of speed and accuracy.

BUS 103 Intermediate Typewriting 2 3 3
Development of speed and accuracy with further mastery of correct typewriting techniques as applied in tabulation, manuscript, correspondence, and business forms.
Prerequisite: BUS 102 or equivalent.

BUS 104 Advanced Typewriting 2 3 3
Emphasis on production typing problems and speed building. Attention to the development of the student's ability to function as a typist, producing mailable copy.
Prerequisite: BUS 103.

BUS 105A Introduction to Shorthand 2 3 3
A beginning course in theory and practice of reading and writing Gregg shorthand.

BUS 105B Introduction to Shorthand 2 3 3
A sequel to BUS 105A, emphasis in the course is on phonetics, penmanship, word families, brief forms, and phrases. Prerequisite: BUS 105A or equivalent.

BUS 106 Beginning Shorthand 5 0 5
A beginning course in the theory and practice of reading and writing Gregg shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.
Prerequisite: ENG 101S.

BUS 106A Shorthand Lab 0 5 0
Dictation practice in shorthand lab to accompany shorthand class.

BUS 107 Intermediate Shorthand 5 0 5
Continued study of theory with greater emphasis on dictation and elementary transcription.
Prerequisite: BUS 106 or equivalent.

BUS 107A Shorthand Lab 0 5 0
Dictation practice in shorthand lab to accompany shorthand class.

BUS 108 Advanced Shorthand 5 0 5
Review of shorthand principles, daily speed practice, and development of greater dictation and transcription speed.
Prerequisite: BUS 107.
Co-rerequisite: BUS 187.

BUS 108A Shorthand Lab 0 5 0
Dictation practice in shorthand lab to accompany shorthand class.

BUS 110 Office Machines 2 2 3
Training in techniques, processes, operations, and applications of ten-key adding machines, full keyboard adding machines, and electronic and rotary calculators.
Prerequisite: MAT 109 or equivalent.

BUS 112 Filing 3 0 3
Fundamentals of indexing and filing, combining theory and practice by the use of minature letters, filing boxes, and guides. Students will also become familiar with modern filing equipment.

BUS 113 Machine Transcription I 5 0 5
An introductory course in the correct techniques of operating the dictating and transcribing units, plus fundamentals of transcription such as spelling, punctuation, grammar, letter placement, and the use of reference materials.
Prerequisite: BUS 103 and ENG 101S.

BUS 114 Machine Transcription II 5 0 5
A continuation of BUS 113 with additional emphasis on producing mailable business correspondence.
Prerequisite: BUS 113.

BUS 115 Business Law 3 0 3
A study of the law as it applies to ordinary business transactions, including the law of contracts, agency and employment and commercial paper. The purpose of this course is to give students an awareness of legal problems that frequently arise in business and social life.

BUS 116 Business Law 3 0 3
A continuation of BUS 115. Includes the law of personal property and bailments, sales, insurance, and torts.

BUS 117 Office Machines 3 2 4
Operation of the machines used in duplicating and calculating processes. An understanding of the functions of each machine and how it simplifies office work will be developed. An appreciation for accuracy of machine work and duplicating and calculating machines vocabulary should be developed.
Prerequisites: BUS 102 and MAT 109.

BUS 120 Principles of Accounting 5 0 5
A study of basic accounting concepts as applied to a single proprietorship. Practical problems requiring the use of journals and general ledgers,

preparation and analysis of work sheets, the balance sheet, and income statements. An introduction to basic concepts of internal control are included.
Prerequisite: MAT 109 or equivalent.

BUS 121 Principles of Accounting 5 0 5
An expanded study of the accounting cycle with emphasis on the recording, summarizing, and interpreting of data for management control. Includes a study of payrolls, federal and state taxes, and basic applications for computerized accounting.
Prerequisite: BUS 120.

BUS 122 Principles of Accounting 5 0 5
Partnership and corporation accounting, including a study of financial statement analysis and the use of financial ratios.
Prerequisite: BUS 121.

BUS 123 Business Finance 3 0 3
Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study of short-term, long-term, and consumer financing is included.

BUS 128 Basic Accounting I 3 0 3
A study of the basic accounting concepts as applied to a personal service enterprise. Students will work problems involving the accounting cycle utilizing journals and ledgers and the preparation of financial statements. The course includes accounting methods for payrolls, merchandise, and notes.

BUS 129 Basic Accounting II 3 0 3
A study of basic accounting concepts as applied to a merchandising firm. Includes a study of installment and consignment sales, accounting for purchases and sales, inventories, long-term assets and owner's equity, and year-end procedures to be followed in merchandising and wholesale businesses.
Prerequisite: BUS 128.

BUS 134 Personal Grooming 3 0 3
Designed to help the student recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal improvement.

BUS 150 Ten-Key Adding Machine 0 2 1
Training in the techniques, processes, operations, and application of the ten-key adding machine. Offered only for students not taking BUS 110 or BUS 117 for graduation or elective.

BUS 151 Full-Key Adding Machine 0 2 1
Training in the techniques, processes, operations, and application of the full-key adding machine. Offered only for students not taking BUS 110 or BUS 117 for student not taking BUS 110 or BUS 117 for graduation or elective.

BUS 152 Electronic Printing Calculator 0 2 1
Training in the techniques, processes, operations, and application of the electronic printing calculator. Offered only for students not taking BUS 110 or BUS 117 for graduation or elective.

BUS 153 Printing Calculator **0 2 1**
Training in the techniques, processes, operations, and application of the printing calculator. Offered only for students not taking BUS 110 or BUS 117 for graduation or elective.

BUS 154 Cash Register **0 2 1**
Training in the techniques, processes, and operation of the cash register to a level of proficiency of ringing up one item every three seconds. Offered only for students not taking BUS 231 for graduation or elective.

BUS 155 Mimeograph Machine **0 2 1**
Training in the preparation of materials for and the operation of the mimeograph machine. Offered only for students not taking BUS 117 for graduation or elective.
Prerequisite: BUS 102 or equivalent.

BUS 156 Spirit Duplicator **0 2 1**
Training in the preparation of materials for and the operation of the spirit duplicator machine. Offered only for students not taking BUS 117 for graduation or elective.
Prerequisite: BUS 102 or equivalent.

BUS 157 Typing Term Papers **0 2 1**
Training in typing in correct format outlines, manuscripts with footnotes, title sheets, and bibliographies. Offered only for students not taking BUS 103 for graduation or elective. Prerequisite: BUS 102 or equivalent.

BUS 158 Applications In Billing Systems **0 2 1**
Students will be introduced to the fundamentals of mathematics in business and basic accounting procedures as necessary to the operation of an electronic billing system.

BUS 160 Introduction to Magnetic Tape Selectric Typewriter **0 2 1**
An introduction to the functions and principles of the operation of the IBM MTST, Model VI. Emphasis is placed on the principle of recording material on a magnetic tape. The course covers recording, adjusting, and playing back recorded material.

BUS 161 Applications of Magnetic Tape Selectric Typewriter **0 2 1**
Emphasis is placed on recording various business forms on tape and playing back recorded copies of letters, manuscripts, and statistical typing.

BUS 162 Applications of Magnetic Tape Selectric Typewriter **0 2 1**
Recording of form letters. Emphasis on revision function of MTST with practice on revising previously recorded material.

BUS 163 Application of Magnetic Tape Selectric Typewriter **0 2 1**
Introduces legal document formating and the application of legal documentation. Emphasizes the recording of legal forms on magnetic tape and the manual insertion of data on the playback copy.

BUS 181M Administrative Medical Office Assistant Procedures 3 0 3

The purpose of this course is to provide adequate training for the assistant to be efficient in the medical office. Emphasis is placed on medical ethics and law; receptionist duties; telephone techniques; mail processing procedures; records management billing, collecting, and banking procedures; and accident insurance.

BUS 182M Clinical Assistant Procedures 3 3

This is a continuation of medical office training covering a vast area of clinical techniques, such as microbilogy, pharmacology, diagnostic laboratory procedures, first aid and medical emergencies, and administration of medications. Further study is made available in assisting with physical therapy, minor surgery, etc.

BUS 183E Terminology and Vocabulary: Executive 3 0 3

Terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices.
Prerequisite: BUS 107.

BUS 183L Legal Typing Practice 3 0 3

Training in the functions, operations, and duties performed in a legal office. The course includes typing legal documents, reviewing general information about tasks assigned, following established procedures, performing general office routine, and learning the responsibilities of a legal secretary.
Prerequisite: BUS 103.

BUS 183M Terminology and Vocabulary: Medical 3 0 3

Terminology and vocabulary appropriate to the course of study as it is used in business, technical, and professional offices.

BUS 184M Medical Typing Practice 3 0 3

Training in the functions, operations, and duties performed in a medical office. Technical material acquaints the prospective medical assistant with commonly used medical vocabulary and procedures.
Prerequisite: BUS 103.

BUS 187 Introduction to Transcription 3 0 3

Integration of the necessary skills for transcribing at the typewriter.
Prerequisite: BUS 106.
Co-requisite: BUS 107.

BUS 205 Production Typewriting 2 3 3

Development of individual production rates. Techniques needed in planning and in typing projects that closely approximate the work appropriate to the field of study.
Prerequisite: BUS 258.

BUS 206 Dictation and Transcription 5 0 5

Development of dictation and transcription skills with emphasis on mailable copy.
Prerequisite: BUS 108 and BUS 187.

BUS 206A Shorthand Lab 0 5 0

Dictation practice in shorthand lab to accompany shorthand class.

BUS 207 Dictation and Transcription 5 0 5
Further development of diction and transcription skills with emphasis on mailable copy.
Prerequisite: BUS 206.

BUS 207A Shorthand Lab 0 5 0
Dictation practice in shorthand lab to accompany shorthand class.

BUS 213 Machine Transcription III 5 0 5
Emphasis on refinement of machine transcription skills. Proficiency in producing mailable copy in an office-type situation.
Prerequisite: BUS 114.

BUS 215 Office Application 0 10 1
Emphasis on work experience and an opportunity for the practical application of the skills and knowledge previously learned. The student is assigned to a commercial firm for general office work as required by the cooperating firm.
Prerequisites: BUS 214, BUS 205, and BUS 117.

BUS 216 Office Procedures 5 0 5
Designed to acquaint the student with the responsibilities encountered by a general office worker during the work day, including: receptionist duties, handling the mail, telephone techniques, handling the multi-office switchboard, travel information, telegrams, office records, purchasing supplies, office organization, and scheduling appointments.
Prerequisite: BUS 205.

BUS 219 Credit Procedures and Problems 3 0 3
Principles and practices in the extension of credit and the collection of accounts. Federal and state laws pertaining to credit extension and to the collection are included.
Prerequisite: BUS 120.

BUS 222 Intermediate Accounting 5 0 5
An intensive review of the accounting cycle, including study of financial statements and closing procedures. Includes a more detailed study of current assets including cash, temporary investments, receivables and inventories.
Prerequisite: BUS 122.

BUS 223 Intermediate Accounting 5 0 5
A more advanced study of inventories, investments, and plant and intangible assets. Both current and long-term liabilities are examined. Procedural as well as theorectical studies are made.
Prerequisite: BUS 222.

BUS 224 Intermediate Accounting 5 0 5
A study of stockholder's equity accounts. Managerial information provided by earnings and equity per share, statement of changes in financial position, and financial statement analysis.
Prerequisite: BUS 223.

BUS 225 Cost Accounting 3 2 4
Theory and procedures of cost accounting; accounting for prime costs and factory burden; job order, process, and standard cost systems; computation of unit costs; accounting for managerial purposes.
Prerequisite: BUS 122.

BUS 227 Advanced Accounting 5 0 5
Study of Professional Code of Ethics and APB Opinions. Application of accounting theory and principles through case studies.
Prerequisite: BUS 224.

BUS 229 Taxes 3 2 4
Application of federal and state taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance.
Prerequisite; BUS 122.

BUS 231 Sales and Inventory Procedures 3 0 3
Emphasis on selling procedures, customer relations, marketing and displaying merchandise, use of the cash register, credit card sales, and inventory record-keeping as required for a general sales clerk.

BUS 232 Sales Development 3 0 3
A study of the fundamentals of retail, wholesale, and specialty selling as applied to the sales demonstration.

BUS 233 Personnel Management 3 0 3
A study of the personnel department; policies of recruitment, selection, placement, training, and promotion; and employee health and safety.

BUS 235 Business Management 3 0 3
A study of the application of planning, staffing, controlling, directing, and financing to decision making.

BUS 239 Marketing 5 0 5
A survey of the marketing process with a detailed study of functions, policies, and institutions.

BUS 243 Advertising 3 2 4
A study of advertising appeals, product and market research, media selection, and testing effectiveness of mass communications.

BUS 247 Business Insurance 3 0 3
A presentation of the basic principles of various types of insurance.

BUS 258 Speed Typewriting 2 3 3
Emphasis on improving typing techniques, including stroke control, accuracy, forced speed building, and retained speed for long periods of typing straight copy.
Prerequisite: BUS 104.

BUS 259 Applied Office Typewriting 2 3 3
A culmination of typing skills involving general clerical duties such as typing invoices, insurance forms, statements of account, form letters, reports, and

purchase orders. Special emphasis on payroll typing and number symbol drills and problems. Includes experience in a variety of employment typing tests. Prerequisite: BUS 205.

BUS 268 Auditing Theory 3 0 3
A study of the audit profession stressing professional responsibilities and ethics. An introduction to the audit process, including an overview, methods of obtaining audit evidence, and audit program planning.

BUS 269 Auditing 3 0 3
A more advanced study of auditing techniques including statistical sampling, tests of transactions and balances, and evaluation of internal control. The reporting function of auditing is closely examined.
Prerequisite: BUS 224 and BUS 268.

BUS 271 Office Management 3 0 3
A study of basic management principles as applied to the office as a business service center.

BUS 272 Principles of Supervision 3 0 3
A study of the responsibilities and duties of a supervisor as related to his supervisors, subordinates, and associates.

BUS 284M Medical Terminology and Vocabulary 3 0 3
Course emphasis is on understanding medical terminology and vocabulary as used in business, technical, and professional offices.
Prerequisite: BUS 183M.

BUS 290A Special Problems in Business 1 0 1
290B Special Problems in Business 1 0 1
290C Special Problems in Business 1 0 1
This course is designed for students who want to expand their knowledge and ability in certain areas of business management, accounting, or secretarial skills. The course is structured to meet the specific objectives of each student and is supervised by an appointed member of the staff.

BUS 1103 Small Business Operations 3 0 3
An introduction to the business world; includes problems of small business operations, basic business law, business forms and records, financial problems, ordering and inventorying layout of equipment and offices, methods of improving business and employer-employee relations.

BUS 1105 Industrial Organizations 3 0 3
Methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product costs. Prerequisite: None.

BUS 1231 Sales Development and Inventory Procedures 1 4 0 3
Emphasis on selling procedures, customer relations, marketing and displaying merchandise, use of the cash register, credit card sales, and inventory recordkeeping as required for a general sales clerk.

CARPENTRY

CAR 1101 Carpentry 3 0 15 8
A brief history of carpentry and present trends of the construction industry. The course will involve operation, care, and safe use of carpenters handtools and power tools in cutting, shaping and joining construction materials used by the carpenter. Major topics of study will include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation wall construction, and form construction and erection.

CAR 1102 Carpentry: Millwork and Cabinetmaking 3 0 15 8
Cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment will be emphasized in learning methods of construction of millwork and cabinetry. Practical applications will include measuring, layout, and construction of base and wall cabinets, built-in desks, door and window frames, stairs, and interior and exterior cornices and trim. Materials and finishes will also be studied.
Prerequisites: CAR 1101 and DFT 1110.

CAR 1103 Carpentry: Framing 3 0 15 8
Instruction is given in the principles and practices of frame construction beginning with the foundation sills and including floor joists, subfloors, wall studs, ceiling joists, rafters, bridging, bracing, sheathing, and interior wall partitions. Roof construction includes the layout and construction methods of common types of roofs using standard rafter construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to the coordination of carpentry work with installation of electrical, air conditioning, heating and plumbing, mechanical equipment.
Prerequisites: CAR 1101 and DFT 1111.

CAR 1104 Carpentry: Finishing I 3 0 18 9
Emphasis on exterior and interior trims and finishes. Included are materials and methods used in finishing carpentry such as exterior cornices, door and window trims, interior flooring, door and windows facings, moldings, and cornice construction; installation of hardware; and installation of built-in equipment and cabinets.
Prerequisites: CAR 1103 and DFT 1111.

CAR 1105 Carpentry: Finishing II 3 0 15 8
Further application of the skills acquired in CAR 1104.

CAR 1106 Carpentry: Finishing III 3 0 15 8
A continuation of CAR 1105.

CAR 1113 Carpentry: Estimating 3 0 3 4
A practical course in quantity "take off" from prints of jobs performed by the carpenter. Figuring the quantities of materials needed and costs of building various components and structures.
Prerequisites: DFT 1111 and MAT 1112.

CAR 1114 Building Codes 3 0 0 3
A study of building codes and the minimum requirements for local, county, and state construction regulations. Attention is given to safety, sanitation, mechanical equipment and materials, and to a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code.
Prerequisite: CAR 1103.
Co-requisite: CAR 1104.

COMMERCIAL ART

CAT 101 Advertising Principles 3 0 3
A comprehensive survey of the history, and development of advertising including a discussion of its economic and social values. An introduction to advertising media and current publications in the field.

CAT 102 Drawing 1 4 3
Emphasis in this course is on the basic principles and fundamentals of drawing. Includes application of these basic techniques in problems in perspective drawing and drawing from nature.

CAT 103 Drawing II 1 4 3
A course consisting of a series of problems in which students will explore color and advanced wet and dry media.
Prerequisite: CAT 102.

CAT 104 Drawing III 1 4 3
A course consisting of a series of problems concentrating on graphic interpretation of still-life, landscape, and figure.
Prerequisite: CAT 103.

CAT 105 Life Study 1 4 3
An introduction to the mechanics of drawing the human form, using various drawing instruments and surfaces. The special qualities of the evolving human forms, proportions, and emotional expression of form are emphasized.
Prerequisite: CAT 102.

CAT 106 Life Study 1 4 3
Graphical interpretation and response to the live model with attention to topics such as proportioning, the aging process, character, expression, and draping the model. Building of the figure with attention to placement, balance, rhythm, turning, twisting, wedging, distribution of masses, perspective of form, planes of form, abdominal arch, hair forms and variations are also included.
Prerequisite: CAT 105.

CAT 110 Survey of Art History 3 0 3
A brief survey of art and its development in Western Civilization with emphasis on the development of art forms of expression from the Renaissance through the Twentieth Century.

CAT 121 Design I 3 6 6
An introduction to basic design and its elements and concepts. The course will deal with problems in balance, value, line texture and shape are included.

Work with basic tools and materials to explore some of the design possibilities of the two-dimensional format will be included.

CAT 122 Design II 3 6 6
A continuation of Design I with emphasis on the fundamentals and theories of color and its application and design potential.
Prerequisite: CAT 121 or portfolio.

CAT 123 Layout and Design I 2 6 5
An introduction to the basic techniques of layout and graphic design including paste-up, mechanicals, typography, and production.
Prerequisites: CAT 121, CAT 122, DFT 101, and DFT 102.

CAT 201 Life Study 1 4 3
An advanced course in drawing from a live model with emphasis on the structure of the human figure, its position in space, how light and shadow play on body shapes, character of solid form, and the figure in an environment.
Prerequisite: CAT 106.

CAT 210 Production Techniques 1 4 3
An introduction to production techniques. Includes the exploration of mechanical type and its formation and uses. Airbrush techniques and the commercial uses of silkscreen printing are also included. Each student should acquire a working knowledge of each media through laboratory exercises provided.

CAT 212 Advertising Illustration 1 4 3
An introduction to the use of the illustration in advertising. Students will explore the uses of media and illustration styles.

CAT 213 Advertising Illustration 1 4 3
Advanced problems in advertising illustration with emphasis on originality and the readiness of each student to explore assigned tasks and problems.
Prerequisite: CAT 212.

CAT 214 Type and Letter Form Design 1 4 3
This course includes hand exercises with the pencil, pen point, and lettering brush; mechanical procedures including hand setting type and obtaining type from strip-printer, varitype, and other mechanical means, and laboratory exercises to acquire knowledge of availability of type and its usage.

CAT 218 Photomechanical Techniques 2 6 5
Advanced darkroom techniques concerning both tonal and graphic arts photography. Students will explore means of producing finished photo art work for client presentation.

CAT 224 Layout and Design II 3 6 6
An introduction to intermediate layout and design techniques for offset printing, including the preparation of camera ready art work. Laboratory problems will include an introduction to the graphic art darkroom procedures necessary for offset printing and an introduction to the offset press operation.
Prerequisite: CAT 123.

CAT 225 Graphic Design I 3 6 6
A study of advanced problems in layout and design techniques and to advanced darkroom procedures necessary for offset production. Laboratory exercises include multi-color offset production problems.

CAT 226 Graphic Design II 3 6 6
This course includes the use of simulated professional working conditions in utilizing advanced layout and design techniques for printing. Each student will explore a variety of problems and present his solutions for general class critique and discussion.

CAT 235 Portfolio Development 1 4 3
Each student will become familiar with his specific area of interest and prepare a personal portfolio for presentation to prospective employers.

CAT 240 Painting: Oil and Acrylic 0 6 3
An introduction to basic techniques of painting. Included is a study of early developments in underglazing to direct impasto and the use of tools and instruments of painting. Methods of applying paint to surface and dynamic use of color and form are emphasized.

CAT 241 Painting: Water Color 0 6 3
An introduction to the methods of watercolor painting. The fluidity of the media and dry brush effect and the use of tools and instruments of painting are included. Emphasis will be placed on the integrity of the medium.

CAT 242 Drawing: Pastels 1 4 3
An introduction to techniques of pastels, including experimenting with application of chalk to various papers. The use of tools of the craft, methods of applying chalk to the paper surface, and utilizing the paper itself as a moving force in the medium are also included.

CAT 243 Portrait Drawing 1 4 3
A preliminary course in graphic representation of the human face, studying skull and neck structure, muscle development, hair forms, facial forms, and expression.

CAT 244 Fashion Illustration 1 4 3
A study of the clothed figure, with attention to the functional relationship of fashion design to the human form and to the study of draped fabric. Graphic interpretations of a live model in gesture and rendering fabric effects is emphasized.

CAT 250 Special Problems in Commercial Art And Graphic Design 1 4 3
A course designed for students who wish to expand their knowledge and ability in particular areas of interest. This course will be supervised by an appointed member of the staff and permission to enroll must be obtained from department chairperson.

CAT 251 Special Problems In Commercial Art And Graphic Design 3 6 6
A course designed for the exceptional student who wishes to develop a particular project in a specific area of interest. Work will be supervised by an ap-

pointed member of the staff and permission to enroll must be obtained from department chairperson.

CHEMISTRY

CHM 101 Chemistry 4 2 5
A review of the physical and chemical properties of substances; chemical changes; elements, compounds, gases, chemical combinations; weights and measurements; theory of metals; acides, gases, salts, solvents, solutions, and emulsions; and electro-chemistry, electrolytes, and electrolysis in their application of chemistry to industry.

CHM 102 Inorganic Chemistry 4 2 5
An introduction to environmental chemistry, and the relationship of chemistry to man and his environment. Topics studied include environmental measurement, atomic theory, the nature of chemical bonds, the structure of matter, molecular motion, and chemical reactions. Practical applications will be emphasized using class demonstrations and labs.

CHM 103 Inorganic Chemistry 4 2 5
An application of basic chemical principles to environmental problems. Topics covered include the chemistry of water and water pollution, air pollution and atmospheric chemistry, environmental contamination by heavy metals, pesticide chemistry, and the problem of clear energy in the environment.
Prerequisite: CHM 102.

CHM 106 Organic Chemistry 4 2 5
A study of the general principles and theories of organic chemistry and the preparations, formulas, and properties of the most important organic compounds, with a brief description of synthetic compounds of commercial value; and vitamins, antibiotics, hormones, and pesticides are included.

CHM 110 Chemistry For Nurses 3 0 0 3
This course is designed primarily for students in health-related fields. Emphasis is placed on the practical aspects of inorganic, organic, and biological chemistry. Theoretic topics in chemistry are dealt with as an aid to understanding and studying human bodily processes.

CIVIL ENGINEERING

CIV 101 Surveying 2 6 4
A study of the theory and practice of plane surveying including taping, differential and profile leveling, cross sections, earthwork computations, transit stadia, and transit tape surveys. Layout of footings, floor levels, and site work will be included.
Prerequisite: MAT 102 and ARC 107.

CIV 102 Surveying 2 6 4
Triangulation of ordinary precision, use of plane tablet, calculation of areas of land, land surveying, topographic surveys and mapping are included in this course.

CIV 103 Surveying 2 6 4
This course includes a study of route surveys by ground and aerial methods; simple compound, reverse, parabolic and spiral curves; geometric design of highways; and highway surveys and plans, including mass diagrams.

CIV 105 Architectural Materials and Methods 3 3 4
Materials used in the construction of architectural structures will be studied. Field trips to construction sites and a study of manufacturer's specifications for materials and of properties and standard sizes of structural materials and construction techniques are included.

CIV 106 Architectural Materials and Methods 3 3 4
A study of building materials and construction methods for commercial buildings.
Prerequisite: CIV 105.

CIV 110 Surveyor Practices 1 0 1
A study of the legal principles of surveys and resurveys including boundary control and interpretation of deed descriptions. Legal, judicial, and historical aspects of land surveying are also studied.

CIV 114 Statics 5 0 5
A study of forces, resultants, and types of force systems; moments, equilibrium of coplanar forces by analytical and graphic methods; stresses and reactions in simple structures; equilibrium of forces in space, and center of gravity, centroids, moment of inertia, and hydrostatic load analysis.
Prerequisite: MAT 102.

CIV 204 Surveying 2 6 4
A study of aerial photogrammetry; applications of aerial surveys; building and road construction surveying; and lines and grades for foundation layout, building construction, bridge layout, sewer and pipe line surveys.

CIV 216 Strength of Materials 3 2 4
A study of fundamental stress and strain relationship; shear and bending moments; stresses and deflections in beams; introduction to statically indeterminate beams; columns, combines stresses.
Prerequisites: CIV 114 and MAT 103.

CIV 221 Reinforced Concrete Construction 3 2 4
Analysis and design of reinforced concrete beams, floor systems, columns, use of CRSI Design Handbook, and introduction to ultimate strength design, and principles of prestressed and precast concrete are studied. Field inspection trips are included.
Prerequisite: CIV 216.

CIV 223 Codes, Contracts, and Specifications 2 0 2
A study of the basic principles and methods significant in contract relationships; legal considerations in construction work; and the National Building Code and local building codes. Interpreting and outlining specifications are also included.

CRIMINAL JUSTICE COURSES

CJC 101 Introduction to Criminal Justice 5 0 5
A general course designed to provide an overview of the Criminal Justice system including its philosophy, objectives, and legal limitations in a democratic society.

CJC 109 Interviewing 3 0 3
A course designed to provide the student with a knowledge of the fundamental techniques employed in interviewing. Instruction will cover an introduction to interrogation and an overview of the sources of information available to investigators.
Prerequisite: Permission of Instructor-Coordinator.

CJC 112 Motor Vehicle Laws 3 0 3
A study of the traffic enforcement codes with primary emphasis on North Carolina Law.

CJC 115 Criminal Law I 3 0 3
A study of criminal laws dealing with offenses against the person. Emphasis will be placed on North Carolina Law.

CJC 116 Criminal Law II 3 0 3
A study of criminal laws dealing with offenses against property. Emphasis will be placed on North Carolina Law.
Prerequisite: CJC 115 or permission of Instructor-Coordinator.

CJC 120 Principles of Organization 3 0 3
An introduction to the principles of organization and administration with emphasis upon theories and techniques utilized in public agencies.

CJC 121 Personnel Supervision 3 0 3
A study of the principles and theories employed in modern personnel supervision.
Prerequisite: CJC 120 or permission of Instructor-Coordinator.

CJC 125 Criminal Procedure 2 0 2
A course designed to provide the student with a knowledge of legal aspects of criminal procedures from the initial investigation through the final appeal.

CJC 151 152, 153, 154, 155, 156
Readings in Criminal Justice 1 0 1
These courses are designed for students who wish to specialize or expand their knowledge in certain areas of Criminal Justice. Under the supervision of police science faculty members, the approach is structured to enable the student to study materials, which are relative to concepts in Criminal Justice and to write critical analyses of them. Time allotted for students independent study and individual conferences with the supervising instructor will be arranged.

CJC 204 Evidence Photography 3 2 4
A study of photographic principles and their application to evidence photography. Students will develop skills in photographic techniques and the use of various types of equipment through lab practice.

CJC 205 Evidence 3 0 3
Instruction will cover the legal aspects of the various kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

CJC 210 Investigation 4 2 5
A course designed to instruct the student in the fundamental concepts of investigation.
Prerequisite: CJC 204, CJC 211.

CJC 211 Criminalistics 4 2 5
A general survey of the methods and techniques employed in modern scientific investigations with emphasis on evidence which is compared by physical means.
Prerequisite: CHM 101.

CJC 235 Forensic Science 3 2 4
A survey of the physical sciences and their application to the field of investigation with emphasis on evidence which is compared chemically.
Prerequisite: CHM 101.

COOPERATIVE EDUCATION

COE 100 Students, Career, and Society 3 0 3
An introduction and orientation to experimental education and to broader participation in society. Attention is given to responsibilities and opportunities associated with career improvement and to preparation for employment in the business, industrial, and professional community. Application of theory to the actual work situation is emphasized. A general education course designed to help students in vocational, and technical programs make the transition from the campus to the world of work.

COE	**101A**	**Cooperative Education Intern**	**0**	**10**	**1**
COE	**101B**	**Cooperative Education Intern**	**0**	**20**	**2**
COE	**101C**	**Cooperative Education Intern**	**0**	**30**	**3**
COE	**101D**	**Cooperative Education Intern**	**0**	**40**	**4**
COE	**102A**	**Cooperative Education Intern**	**0**	**10**	**1**
COE	**102B**	**Cooperative Education Intern**	**0**	**20**	**2**
COE	**102C**	**Cooperative Education Intern**	**0**	**30**	**3**
COE	**102D**	**Cooperative Education Intern**	**0**	**40**	**4**
COE	**103A**	**Cooperative Education Intern**	**0**	**10**	**1**
COE	**103B**	**Cooperative Education Intern**	**0**	**20**	**2**
COE	**103C**	**Cooperative Education Intern**	**0**	**30**	**3**
COE	**103D**	**Cooperative Education Intern**	**0**	**40**	**4**
COE	**104A**	**Cooperative Education Intern**	**0**	**10**	**1**
COE	**104B**	**Cooperative Education Intern**	**0**	**20**	**2**
COE	**104C**	**Cooperative Education Intern**	**0**	**30**	**3**
COE	**104D**	**Cooperative Education Intern**	**0**	**40**	**4**

COE	**105A**	**Cooperative Education Intern**	**0**	**10**	**1**
COE	**105B**	**Cooperative Education Intern**	**0**	**20**	**2**
COE	**105C**	**Cooperative Education Intern**	**0**	**30**	**3**
COE	**105D**	**Cooperative Education Intern**	**0**	**40**	**4**
COE	**106A**	**Cooperative Education Intern**	**0**	**10**	**1**
COE	**106B**	**Cooperative Education Intern**	**0**	**20**	**2**
COE	**106C**	**Cooperative Education Intern**	**0**	**30**	**3**
COE	**106D**	**Cooperative Education Intern**	**0**	**40**	**4**

Through Cooperative Education, the student works in a position related to his program of study or career interest and for an employer selected and/or approved by the institution. The student is supervised by a faculty member or cooperative supervisor from the institution. Normal credit hours for the field work of a cooperative program are determined by dividing the average ten and rounding to the nearest whole number. A student may receive a maximum of four credit hours during any one quarter and a maximum of nine credit hours toward degree or diploma requirements.
Prerequisite: One quarter as a full-time student or permission from the Cooperative Education Director.

COSMETOLOGY

COS 1101 Cosmetology I **400 12**
This quarter is for beginners in cosmetology. It includes a study of professional ethics, grooming and personality development, sterilization, sanitation, first-aid, and bacteriology. The practical work is devoted to finger-waving, pin curling, roller curling, manicuring, marcelling, hair cutting, and hair relaxing.

COS 1102 Cosmetology II **400 12**
This quarter is devoted to the study of the theory and practical application of permanent waving-cold and heat wave, tinting and bleaching, anatomy, facials, and scalp treatments.

COS 1103 Cosmetology III **400 12**
This quarter is devoted to the study of the theory and practical application of hair styling and wig care; disorders of skin, nails and hair; electricity; chemistry; and operational management.

COS 1104 Cosmetology IV **300 12**
This quarter is devoted to the study of the theory and practical application of advanced hair styling, operational management, and salesmanship.

CULINARY SCIENCE

CSP 110 Food Service Practicum I **4 36 9**
This course is planned to give the student an opportunity to have directed experiences in the industry and to gain practical experience. The student must

receive the approval of the department chairman prior to registering for the course. Students may register for either session of summer school.

CSP 203 Food Service Practicum II 1 9 4
This course is designed to introduce the students to basic dining room routines, basic menu terminology, various stations of the dining room, and techniques of service as practiced in leading dining rooms. Merchandising of the menu is also emphasized.
Prerequisite: CSP 110.

CSP 214 Food Service Practicum III 1 9 4
This course is planned to provide students with the opportunity to practice the proper techniques of service in the dining room. Courtesy to guests and attractiveness of plate presentation are emphasized. Kitchen-dining room flow of services is also included.
Prerequisite: CSP 203.

DRAFTING

DFT 101 Technical Drafting 1 or 0 3 or 6 2 or 3
An introduction to the field of drafting. Includes a study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric instruction, orthographic instruction drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

DFT 102 Technical Drafting 1 or 0 3 or 6 2 or 3
The application of orthographic projection principles to the more complex drafting problems, primary and secondary auxilary views, simple and successive revolutions, and sections and conventions will be studied. Most important is the introduction of the graphical analysis of space problems. Problems of practical design elements involving points, lines, planes, and a combination of these elements shall be studied. Dimensioning practices, approved by the American Standards Association will also be included. Introduction is given to intersections and developments of various types of geometrical objects.
Prerequisite: DFT 101.

DFT 104 Blueprint Reading - Mechanical 3 0 3
Interpretation and reading of blueprints. Information on the basic principles of the blueprint including lines, dimensioning procedures, and notes.

DFT 105 Blueprint Reading and Sketching 3 0 3
Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operation; introduction to drafting room procedures; and sketching as a means of passing on ideas, information and processes.
Prerequisite: DFT 104.

DFT 230 Structural Drafting 2 6 4
A concentrated study and drawing of structural plans with emphasis on details

and shop drawings of the structural components of buildings including steel, reinforced concrete, and timber structures. Appropriate symbols, conventions, dimensioning practices, and notes used by the draftsman will be included. Emphasis will also be placed on drafting appropriate drawings for fabrication and erection of the structural components.
Prerequisites: ARC 220 and CIV 105.

DFT 235 Codes, Specifications, and Contract Documents 3 3 4
A study of building codes and their effect on specifications and drawings. The purpose and writing of specifications and their legal and practical application to working drawings are studied. Contract documents are analyzed and studied to determine client-architect-contractor responsibilities, duties, and mutual protection.
Prerequisite: ARC 220.

DFT 236 Construction Estimating and Field Inspection 3 3 4
This course includes interpretation of working drawings for a project; preparation of material and labor quantity surveys from plans and specifications; and approximate and detailed estimates of cost. The student will study material take off, labor take off, subcontractors' estimates, overhead costs, and bid and contract procedures. Detailed inspection of the construction by comparing the finished work in the specifications is also included.
Prerequisite: DFT 235.

DFT 1101 Schematics and Diagrams: Power Mechanics 0 0 3 1
Interpretation and reading of schematics and diagrams. Development of ability to read and interpret blueprints, charts, instruction and service manuals, and wiring diagrams. Information on the basic principles of lines, views, dimensioning procedures, and notes.
Prerequisite: None.

DFT 1104 Blueprint Reading: Mechanical 3 0 0 3
Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes.
Prerequisite: None.

DFT 1105 Blueprint Reading: Mechanical 3 0 0 3
Further practice in interpretation of blueprints as they are used in industry; study of prints supplied by industry; making plans of operations; introduction to drafting room procedures; and sketching as a means of passing on ideas, information and processes.
Prerequisite: DFT 1104 or DFT 1202.

DFT 1106 Blueprint Reading: Mechanical 3 0 0 3
Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. The interpretation of drawings of complex parts and mechanisms for features of fabrication, construction and assembly.
Prerequisite: DFT 1105.

DFT 1110 Blueprint Reading: Building Trades 3 0 0 3
Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three dimensional views and pictorial sketches.

DFT 1111 Blueprint Reading and Sketching I 3 0 0 3
Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction: Development of proficiency in making three dimensional views and pictorial sketches.
Prerequisite: DFT 1110.

DFT 1112 Blueprint Reading and Sketching II 3 0 0 3
Designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings will be studied with emphasis on the plot plan, floor plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work.
Prerequisite: DFT 1111.

DFT 1113 Blueprint Reading and Sketching III 3 0 0 3
Interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be included.
Prerequisite: DFT 1110.

DFT 1114 Blueprint Reading: Electrical 0 0 6 2
Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three dimensional views and pictorial sketches. Interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes will be included.

DFT 1116 Blueprint Reading: Air Conditioning 2 0 6 4
Interpretation and reading of blueprints. Information on the basic principles of the blueprint; lines, views, dimensioning procedures and notes. Fundamentals of sketching and drawing for the air conditioning heating, and refrigeration trades. Course will include some drawings of electrical circuits, heating controls and elements, refrigeration controls, and similar drawings which appear on blueprints related to these trades.

DFT 1117 Blueprint Reading: Welding 3 0 0 3
A thorough study of trade drawings in which welding procedures are indicated. Interpretation, use and application of welding symbols, abbreviations, and specifications.
Prerequisite: DFT 1104.

DFT 1118 Pattern Development and Sketching 3 0 0 3
Continued study of welding symbols; methods used in layout of sheet steel; sketching of projects, jigs and holding devices involved in welding. Special em-

phasis is placed on developing pipe and angle layouts by the use of patterns and templates.
Prerequisite: None.

DFT 1120 Drafting: Electronic Servicing 3 0 3 4
An introduction to the field of drafting, includes a study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric construction, orthographic instrument drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective are introduced.

DFT 1121 Drafting 3 0 12 7
An introduction to drafting and the study of drafting practices. Instruction is given in the selection, use, and care of instruments; singlestroke lettering; applied geometry; and freehand sketching consisting of orthographic and pictorial drawings. Orthograhic projection, reading and instrument drawing of principal views, single auxiliary views (primary), and double (oblique) auxilary views will be emphasized. Dimensioning and note practices will be studied with reference to the American Standards Association practices. Methods of reproducing drawings will be included.

DFT 1122 Drafting 3 0 6 5
A study of simple and successive revolutions and their applications to practical problems. Sections and conventions will be studied and detail and assembly sections will be drawn. Intersections and developments will be studied by relating the drawing to the sheet metal trades. Models of the assigned drawings will be made from construction paper, cardboard, or similar materials as a proof of the solution to the problems drawn. Methods of drawing and projecting axonometric, oblique, and perspective drawings will be studied with emphasis on the practical applications of pictorial drawings. Various methods of shading will be introduced and dimensioning and sectioning of oblique and axonometric pictorials will be included.
Prerequisite: DFT 1121.

DFT 1125 Descriptive Geometry 2 0 3 3
Graphical analysis of space problems including practical design elements which involve points, lines, planes, connectors, and combinations of these, and problems involving solid geometry theorems. Where applicable, each graphical solution shall be accompanied by the analytical solution.
Prerequisite: DFT 1121.

DFT 1131 Mechanical Drafting 3 0 12 7
An introduction to mechanical drafting problems concerning precision and limit dimensioning; and methods fastening materials and fastners including keys, rivets, springs, and welding. Symbols will be studied and drawings will be made involving these items. Principles of design will be introduced with study of basic mechanisms of motion transfer. Gears, cams, and calculating dimensioning will be studied. Drawings will be made involving these mechanisms.
Prerequisite: DFT 1121.

DFT 1132 Mechanical Drafting 3 0 12 7
A study of the principles of design sketching, design drawings, layout drafting, detailing from layout drawings, production drawings, and simplified drafting practices. Forging and casting drawings will be made from layouts. Specification, part lists, and bills of materials are emphasized. The student will develop a complete set of working drawings of a tool, jig, fixture, or simple machine and learn principles of design and handbook and manual usage.

DFT 1201 Drafting: Mechanical I 1 3 0 2
Introduction to drafting room procedures; sketching as a means of passing on ideas, information, and processes; and the use of drafting instruments in the practice of lettering, dimensioning, orthographic projections and working drawings.

DFT 1202 Drafting: Mechanical II 1 3 0 2
Additional instruction and practice in orthographic projections, working drawings, lettering and dimensioning. Also included is an introduction to sectioning, pictoral drawings, and the use of drawing instruments for the graphical solution of geometrical problems. Emphasis is placed on interpretation of shop blueprints to better prepare students for DFT 1105.
Prerequisite: DFT 1201.

DFT 1203 Drafting: Mechanical III 0 6 0 2
A continued study of orthographic projection with emphasis on working drawings for manufacturing processes; detailing, isometric and oblique drawings; and principles of design. Considerable emphasis to be given to the drawing of fasteners, cams, and gears. Drafting standards for assembly drawings are also included.
Prerequisite: DFT 1202.

ECONOMICS

ECO 102 Economics 3 0 3
The fundamental principles of micro economics including the institutions and practices by which people gain a livelihood. Emphasis is placed on basic conditions for the market system and how the market process functions in the real world. Supply and demand, price and cost, are emphasized in addition to current economic problems.

ECO 104 Economics 3 0 3
Continuation of a study of the principles of economics, with emphasis on macro issues such as national output and income, international trade and finance, and current economic problems.

ECO 108 Consumer Economics 3 0 3
A course designed to help the student use his resources of time, energy, and money. The student is given opportunities to build useful skills in buying, managing his finances, increasing his resources, and understanding better the economy in which he lives.

ELECTRONIC DATA PROCESSING

EDP 100 Data Processing Seminar 0 1 0
This monthly seminar affords all data processing students an opportunity to meet guests from industry, to share ideas, and to facilitate necessary communication between students and departmental faculty.

EDP 104 Introduction to Data Processing 3 0 3
Fundamental concepts and operational principles of data processing systems are studied as aides in developing a basic knowledge of computers, prerequisite to the detailed study of a particular computer problem.

EDP 105 Keypunch 3 2 4
Fundamentals in operating the keypunch machine with emphasis on attaining skills that meet minimum industrial standards for keypunch operators. Includes practice in taking raw data and transferring it to punch card form.

EDP 114 Introduction to Computer Concepts 3 0 3
An introductory course in computers for the student who plans to pursue a degree in data processing and for the student who desires a general non-technical knowledge of terminology and concepts. No previous knowledge or experience in data processing is required.

EDP 115 FORTRAN 2 4 4
A fundamental course is FORTRAN programming. The FORTRAN language structure, statements, and programming methods and techniques are studied. The student will develop program logic and write FORTRAN programs for solving sample problems.

EDP 116 Assembly Language I 2 4 4
The study of symbolic computer languages with emphasis on a particular example of such a language. The student will develop program logic and write programs using assembly language to solve appropriately assigned problems.

EDP 117 Assembly Language II 2 4 4
A continuation of Assembly Language to provide the student more depth and experience using a symbolic programming language.

EDP 118 COBOL I 2 4 4
This course is designed to provide basic training in COBOL programming. The COBOL language structure, statements, and programming methods and techniques are studied. The student will develop program logic and write COBOL programs for solving sample problems.

EDP 119 COBOL II 2 4 4
A continuation of training in COBOL programming techniques and methods. This course is designed to provide the student with the opportunity to apply skills learned in COBOL I to typical business applications.

EDP 130 Computer Operations 3 5
A study of procedures and techniques of operations in a computer system environment. Topics to be studied will be systems utilization, job scheduling, run books, utility programs, operating systems, file security, and teleprocessing.

Special attention will be given to IBM System/3 console operation, operating control language and recovery techniques in handling halt situations.

EDP 211 Applications I **2 4 4**
This course is designed to provide the student with sufficient knowledge in computer methodology to permit the use of computers in business. Emphasis will center around the computer environment with an indepth study of typical business computer applications.

EDP 212 Applications II **2 4 4**
This course emphasizes the preparation and utilization of operations data used in a typical business, case problems involving systems established for collecting the data, and generating information for organizational units. Audit trials enabling the tracing of transactions back to the original source or forward to the first report are analyzed. Simulated data is used to demonstrate programming techniques required in processing management information. Structure of data files will receive major emphasis.

EDP 214 Computer Systems I **2 2 3**
A study of computer systems involving such concepts of architecture and/or programming as channels, interrupts, multiprogramming, job scheduling, file devices, and file organization.

EDP 216 Systems and Procedures **3 0 3**
An introductory course in the principles of management systems applied to information data flows. Particular attention is given to forms flowcharting, forms analysis, and design and systems analysis.

EDP 217 Applied Business Systems **3 0 3**
A continuation of management systems applied to information data flow. Practical work in systems flowcharting and analysis is implemented. The conduction of feasibility studies, the preparation and maintenance of standard practice, policies, and organization manuals, and computer application are stressed.

EDP 219 Computer Language Survey **2 2 3**
A survey and comparison of various computer languages. Students will write and execute basic programs in several computer languages.

EDP 221 Symbolic Logic **3 0 3**
A study of symbolic logic and boolean algebra principles as applicable to computer programming.

EDP 222 Data Processing Project **1 8 5**
This culminating project is designed to provide the student with on the job training in the business computer environment or to develop a comprehensive software system for typical business applications.

EDP 223 Introduction to RPG II **2 4 4**
A study of a report generator language appropriate for use with a small computing system. The student will develop program logic and write programs to solve appropriately related sample business problems.

EDP 224 RGP II 2 4 4
This course is a continuation of EDP 223 with special emphasis on applications and programming procedures of the smaller business.
Prerequisite: EDP 223.

EDP 230 Internship I 0 10 5
A cooperative endeavor between Pitt Technical Institute and industry to give the student on-the-job training experience. The student will work in computer operations for a given company, on location for a minimum of 10 hours per week.

EDP 231 Internship II 0 10 5
A continuation of the on-the-job training begun in EDP 230.

EDP 232 Communications Control Programming 2 4 4
This course is designed to teach the participant how to write telecommunications application programs to run under control of the communications control program (CCP). Also, in order to fully utilize the display format faculty of the CCP, the student will learn the concepts and operation of the information display system.

EDUCATION

EDU 101 Introduction to Education 3 0 3
Provides an overview of American Education including a study of history and philosophy, organization, administration, and financing. Concepts of national intermediate, and local government functions; areas of education from infancy through adulthood; the learner, teachers and other personnel curriculum; materials; problems, and issues are developed.

EDU 106 Practicum in the Elementary School 1 15 6
Program of supervised practice as an assistant in the education of the child, age five to eight.

EDU 107 Practicum in Pre-school Experiences 1 15 6
Program of supervised practice in the care and education of the pre-school child.

EDU 111 Language Arts Techniques-I 3 0 3
Study of means for helping children develop in their ability to communicate and to formulate concepts about their environment. Emphasis is on utilization of all phases of language arts to reinforce concept development and to increase vocabulary through stimulation of oral communication in order to build a basis for beginning reading instruction. Reading assignments and special projects provide opportunities to establish realistic expectations, to identify children with needs for special attention to language development, and to build a language arts resources file.

EDU 115 Audiovisual and Media Instruction 3 2 4
Introduction to the multi-media approach to teaching young children. Students

will have the opportunity to explore all phases of the library, including cataloging, reference materials, periodicals and special services such as storytelling. Experiences will be provided in the use of audiovisual equipment, basic office machines, and the care and repair of books. Experience with a laminating process, making transparencies, placing orders for films, and other audiovisual materials, will be provided.

EDU 203 The Exceptional Child 3 0 3
A survey course with special emphasis on the mentally retarded and emotionally disturbed child. Social, educational and psychological needs of the exceptional child are studied.
Prerequisite: PSY 120 or equivalent.

EDU 204 Parent Education 3 0 3
Study of ways parents can be involved in child development, of the purpose and value of home visitation, and of the techniques for reporting child progress to parents. The role of the education associate in aiding parents in the guidance of the child's development is emphasized.

EDU 212 Language Arts Techniques-II 3 4 5
Study of means for helping children develop in their ability to communicate through the language arts. Emphasis is on utilization of several methods of reading instruction with a thorough review of phonics as the primary objective of the course. Laboratory experience provides opportunities to participate in a tutorial program for individual children.

EDU 225 Seminar-Practicum 1 39 14
The seminar practicum experience involves students with the learning processes in a variety of educational settings. These experiences enable the students to gain exposure to many facets in education, as well as to do specialized study in given areas. Through "learning by doing", the student may correlate his knowledge and skills to an actual teaching situation.

EDU 227 Educating the Disadvantaged Student 3 0 3
A study of minority groups, their characteristics and problems. Emphasis is placed on teaching and communicating with the disadvantaged minority student. Special attention is given to remedial programs designed for the culturally different and educationally deprived.

EDU 230 Pre-School Education 5 4 7
Study of principles and practices of early childhood education - the types of experiences and facilities which will promote optimal development of each child. Guidelines for identifying, planning, organizing and implementing appropriate programs and facilities are derived through group discussion and individual projects. Field experience provides opportunities to observe children and programs in different preschool facilities.

EDU 231 Creative Activities 5 0 5
Individual and group exploration of activities and materials for promoting optimal development of children. Designed to develop an appreciation for the need for play and the activities appropriate at various stages of development.

EDU 1026, 1027, 1028, 1029, 1030, 1031, 1032
General Studies **10 0 10**

Developmental courses designed to provide a program of highly individualized instruction in reading, and writing including vocabulary and spelling, basic arithmetic, personal hygiene, and human relations. Individual goals are established for each student and he is encouraged to move through the courses at a level and rate consistent with his background and ability. Scheduling and organizing of the course content is highly flexible to enable the instructor to respond to the specific needs of each individual.

EDU 1026A, 1027A, 1028A, 1030A, 1031A, 1032A
General Studies **0 8 0**

Study labs designed to supplement classroom instruction. Additional individualized instruction in specific problem areas will be given.

ELECTRICITY

ELC 101 Fundamentals of Electricity I **4 4 6**

A study of the elementary principles of electricity including basic electric units, Ohm's Law, Kirchhoff's Law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, sine wave analysis, and non-resonant resistive, inductive and capacitive networks.
Co-requisite: MAT 101.

ELC 102 Fundamentals of Electricity II **5 4 7**

A study of series and parallel resonant-circuit analysis, resonant and non-resonant transformer analysis, basic diode power analysis, and an introduction to electro-mechanical devices.
Prerequisite: ELC 101.

ELC 111 Basic Electricity **3 2 4**

A study of the basic principles of electricity including characteristics, safe uses, and applications in the electrical components used in water and air pollution sampling equipment.
Prerequisites: MAT 101 and PHY 105.

ELC 112 Alternating and Direct Current **2 6 4**

A study of the electrical structure of matter; the electron theory; and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. OHM's Law and Kirkoff's Law and the relationships and applications of electricity to modern industrial machinery are included.

ELC 113 Alternating Current and Direct Current Machines and Controls **2 6 4**

A study of the fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction is given in the use of electrical test instruments in circuit analysis. Includes a study of the basic concepts of AC and DC machines, simple system controls and an introduction to the types of controls used in small appliances, including thermostats and times or sequencing switches.
Prerequisite: ELC 112.

ELC 119 Industrial Electrical Controls and Systems 2 6 4
A course in the fundamental concepts and applications of electrical, pneumatic and hydraulic control systems. Controls protecting devices, and industrial applications will be emphasized.
Prerequisite: ELC 113.

ELC 121 Electrical Trouble Shooting 2 3 3
In this course, students are required to utilize all service tools, instruments, and equipment necessary to analyze all aspects of service and repair, using the procedures employed in service and repair in industry. Each student will be expected to demonstrate ability and initiative in trouble shooting problems presented.
Prerequisites: ELC 112 and ELC 113.

ELC 210 Rotating Devices 2 2 3
Introduction to electrical machinery. Includes an analysis of AC and DC motor and generator principles; synchros and servo mechanisms; and alternators and dynamotors. Basic theory, operation, and maintenance of these devices and systems will be emphasized.
Prerequisites: ELC 102 and PHY 102.

ELC 1101 Applied Electricity 2 0 0 2
A study of the use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations and electrical principles and procedures for trouble shooting electrical devices used in air conditioning, heating, and refrigeration equipment. Transformers, motors and starting devices, switches, electrical heating devices, and wiring are also studied.

ELC 1102 Applied Electricity 1 0 3 2
A study of the use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations; electrical principles and procedures for trouble shooting electrical devices used in air conditioning, heating and refrigeration equipment; and transformers, and motors and starting devices, switches, electrical heating devices, and wiring.
Prerequisite: ELC 1101.

ELC 1112 Direct and Alternating Current 5 0 12 9
A study of the electrical structure of matter and the electron theory; and the relationship between voltage, current, and resistance in series, parallel, and series parallel circuits. Includes an analysis of direct current circuits by Ohm's Law and Kirchoff's Law and a study of the sources of direct current voltage potentials; fundamentals concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance; and an analysis of alternating current circuits.

ELC 1112A Direct Current Theory and Practice 5 0 15 10
A study of the structure of matter and the electron theory; the relationship between voltage, current and resistance in series, parallel and series parallel circuits. Includes an analysis of direct current circuits by Ohm's Law and Kirchoff's Law and sources of direct current potentials.

ELC 1112B Alternating Current Theory and Practice 5 0 15 10

A study of the fundamental concepts of alternating current, including the generation of sine waves and other non-sinusoidal waveforms; reactance; impedance; power; resonance; and alternating current circuit analysis.

ELC 1113 Alternating Current and Direct Current Machines and Controls 5 0 12 9

A study of the fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction is given in the use of electrical test instruments in circuit analysis. Includes a study of the basic concepts of AC and DC machines and simple system controls and an introduction to the types of controls used in small appliances, including thermostats, and times, or sequencing switches.
Prerequisites: ELC 1112.

ELC 1114 Electrical Safety 3 0 0 3

Emphasis in this course is on the use of electrical test equipment to insure job safety and to prevent shock. Appropriate first-aid techniques used for treating shock victims are also included.

ELC 1115 Special Problems in Electricity 2 0 0 2

Special projects designed to supplement instruction in other courses in electricity.

ELC 1124A Residential Wiring 4 0 6 6

A study of the fundamentals of residential wiring including blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboards, lighting, fusing, wire sizes, branch circuits, and conduits. Also includes application of National Electric Code Regulations in actual building mock-ups.
Prerequisite: DFT 1113.

ELC 1124B Residential Wiring 1 0 3 2

Continued practice in utilizing the skills acquired in ELC 1124A. Major emphasis will be on the application of National Electric Code Regulations in actual building mock-ups.

ELC 1125 Commercial and Industrial Wiring 5 0 12 9

Layout, planning, and installation of wiring systems in commercial and industrial complexes, with emphasis on blueprint reading and symbols, the related National Electrical Codes, and on the application of the fundamentals of commercial and industrial wiring through practical experience in wiring, conduit preparation, and installation of simple systems.
Prerequisites: ELN 118 and ELC 1124.

ELC 1126 Electrical Safety OSHA 2 0 0 2

A study of the safety rules and regulations set forth by the Occupational Safety and Health Act of 1969.

ELECTRIC MOTOR

ELM 1101 Basic Electric Motor Theory Terminology and Use **4 0 6 6**

A study of the electrical structure of matter; the electron theory; magnetism; and the relationship between voltage current and resistance in series, parallel and series-parallel circuits. OHMS Law, Kirkchhoffs Law and related terminology. Instruction is given in above subjects as they apply to A. C. & D. C. electrical machines and control.

ELM 1102 Fundamentals of Electric Motors **4 0 6 6**

Introduction to electric motors, generators and transformers. A study of the physical aspects of above including frames, enclosures, rotors, shafts, bearings, magnetic cores and starting switches. Instruction is given in nameplate interpretation, lubrication, and electrical measurements. Horsepower is introduced and thoroughly covered.

ELM 1110 Shaded Pole Induction Motors **2 0 9 5**

An exhaustive study of the shaded pole motor establishing a foundation for the study of all induction motors. Includes both mechanical and electrical construction, characteristics, application, windings, connections, protection and control. Instruction is given in coil winding and the use and care of test equipment.

Prerequisites: ELM 1101, 1102.

ELM 1111 Split Phase Induction Motors **2 0 6 4**

A study of split phase induction motors with emphasis on replacing the pole shades with an auxiliary or starting winding; a study of the rotating magnetic field resulting from phase splitting; and the resulting characteristics. Instruction is given in spiral coil winding, placement and connecting. The internal and external starting switch is introduced.

Prerequisites: ELM 1101, 1102.

ELM 1112 Capacitor Start Motors **2 0 3 3**

A study of capacitor start motors with emphasis on the modification of the starting winding for capacitor start and capacitor start and run. A study of the torque characteristics resulting from capacitor starting and energy saving resulting from capacitor run. Instruction is given in the proper application of these motors according to their characteristics.

Prerequisites: ELM 1101, 1102.

ELM 1113 Universal Motors **2 0 3 3**

A study of the application of the armature in A. C. motors to produce special speed and torque characteristics and compact size. Instruction is given in armature winding and methods of speed control.

Prerequisites: ELM 1101, 1102.

ELM 1114 Three Phase Induction Motor **4 0 6 6**

A study of the fundamental concepts in 3 phase alternating current circuits, voltages and power measurements. Instruction is given in 3 phase windings and the resulting rotating magnetic field; wye and delta connections; rewinding for voltage change; rewinding for R.P.M. change and winding tests. Includes a study of the squirrel cage rotor and the characteristics of the various types of 3 phase induction motors. Includes an analysis of the energy

conserving aspects of the 3 phase motor versus the 1 phase motor and the overall economy of the 3 phase motor.
Prerequisites: ELM 1101, 1102.

ELM 1115 Wound Rotor Induction Motor 3 0 3 4
A study of the replacement of the squirrel cage rotor with a wound rotor for RPM control and better starting characteristics. Instruction is given in the proper use and application of starting and RPM Control Equipment. Includes a study of the rotor windings and connections and proper testing procedures.
Prerequisites; ELM 1101, 1102.

ELM 1120 Alternators 0 0 3 1
A study of the generation of alternating current. Instruction will be given in alternator stator and rotor, or field, windings. Included will be control systems such as frequency and voltage controls and protective devices, prime movers and field excitation.
Prerequisites: ELM 1101, 1102.

ELM 1121 Direct Current Motors and Generators 3 0 3 4
A study of direct current machines their characteristics and special applications. Instruction will be given in the various types and classes of motors according to their windings and connections with emphasis on speed and torque control. Included will be instruction on all mature and field windings and connections.
Prerequisites: ELM 1101, 1102.

ELM 1122 Transformers 4 0 6 6
A study of the fundamental concepts of A. C. voltage transformation for power transmission, control systems and safety. Instruction will be given in the physical structure and windings of the various types. Included will be instruction on stripping for rewind, taking data and insulating. Transformer connections will be extensively covered.
Prerequisites; ELM 1101, 1102.

ELM 1123 Motor and Generator Controls 4 0 6 6
An extensive study of the various control systems used in the operation and protection of electrical machines. Included will be manual, automatic and electronic control, and thermal, magnetic and timing devices. Instruction will be given in the safety aspect of control systems. Emphasis will be on the national electric code in this course.
Prerequisites: ELM 1101, 1102.

ELM 1130 Auxiliary Shop Procedures 0 0 6 2
To instruct the student in shop methods, practices, the correct use of hand tools, and the safe use of power tools. Special instruction will be given in soldering and welding electrical connections. The student will be exposed to machine shop equipment such as lathes, drills and presses and instructed in their use in certain electric motor and generator repairs. The emphasis will be on safety.

ELM 1131 Motor Maintenance Procedures 1 0 3 2
The purpose of this course is to instruct the student in methods and procedures for extending the useful life of electric motors and generators. Included will be instructions on replacement and proper lubrication of bearings,

replacing and fitting carbon brushes, cleaning and varnishing windings and proper ventilation. Protective devices will be re-emphasized here for the purpose of limiting winding temperatures. The student will also be instructed in SAFE and effective methods of cleaning electrical machinery.

ELECTRONICS

ELN 100 Introduction to Electronics 3 2 4
An introduction to electronics principles and laboratory techniques. The care and proper use of laboratory equipment is emphasized. Techniques of recording and use of laboratory data are taught.

ELN 101 Electronic Instruments and Measurements 1 4 3
A study of basic electronic instruments and theories of operation, functions, tolerances, and calibration of both service and laboratory instruments. Laboratory experiences provide opportunities for application of each instrument studied.
Prerequisite: ELC 102.

ELN 105 Control Devices 5 4 7
A study of the electrical characteristics of vacuum tubes and transistors with basic parameters and applications of each type of device to the three terminal two port system emphasized.
Prerequisite: ELC 102.

ELN 205 Application of Vacuum Tubes and Transistors 5 6 8
A study of the practical applications of vacuum tubes and transistors to basic audio amplifiers, radio frequency amplifiers, detectors, power supplies and oscillators.
Prerequisite: ELN 105.

ELN 210 Semiconductor Circuit Analysis 5 4 7
A study of the analysis and design of transistor circuits. Network theorems and equivalent circuits are used extensively in evaluating total circuit performance. Device peculiarities and limitations pertinent to reliable operations are considered. H.Y.Z. and T. parameters and signal flow graphs are employed.
Prerequisite: ELN 205.

ELN 211P Communication Circuits 3 6 5
Because of the scope and complexity of modern communication systems and equipment, this course emphasizes the principles involved in the use of the components and devices studied, and provides for practice in testing the components and using them in simple relationships in circuits with other units.
Prerequisite: ELN 205.

ELN 214 Wave Shaping and Pulse Circuits I 2 3 3
A study of broadband amplifiers, magnetic amplifiers, multivibrators, wave shaping techniques, chopper amplifiers, clipper and clamper circuits.
Prerequisites: ELN 105 and MAT 103.

ELN 215 Wave Shaping and Pulse Circuits II 4 4 6
A study of the basic principles of pulse circuitry and nonsinusoidal generators and the application of these principles in the field of electronics. This course also includes an introduction to basic logic circuitry as applied in digital computers.
Prerequisite: ELN 214.

ELN 218 Industrial Electonics 3 4 5
A study of industrial electronic systems such as magnetic amplifier controls, welding controls, motor controls, and electronic monitoring equipment.

ELN 220 Electronic Systems 5 4 7
A block diagram course which includes investigations of numerous electronic systems, using modules or blocks of circuits already studied which have been arranged to produce complex electronic systems, the systems will be explained and reduced to functions and then to block diagrams. AM, FM and Single Sideband transmitters and receivers to multiplexing, TV transmitters and receivers; pulse modulated systems; computers; telemetry; navigational systems; and sonar and radar will be considered.
Co-requisite: ELN 215.

ELN 230 Medical Electronics 3 4 5
A study of transductors and electronic circuits used in biomedical systems such as electrocardiographics, heart-rate monitors, blood pressure monitors, and other medical equipment.

ELN 235 Industrial Instrumentation 3 3 4
An introduction to the use of industrial electro-mechanical and electronic circuits and equipment. Includes methods, techniques, and skills required for installation, service, and operations of industrial control systems. An analysis of sensing devices for detecting changes in pressure, temperature humidity, sound, light, and electricity; associated circuitry; and indicating, and recording devices are included.
Prerequisites: ELN 205 and PHY 104.

ELN 245 Electronic Design Project 0 4 2
Students are required to design and construct projects approved by the instructor. Includes selection of project and design, construction, and testing of the completed project. Projects may include AM or FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, or masers.
Prerequisite: ELN 205.

ELN 1101 Troubleshooting Concepts 5 0 0 5
A study of the techniques used in the analysis of defective systems by block diagrams. Includes an introduction to test equipment used in troubleshooting.

ELN 1102 Systems of Troubleshooting 2 0 3 3
A study of troubleshooting radio and television receivers and other complete systems of block diagram analysis using audible and visual indications as the sensory device.

ELN 1103 Introduction to Control Devices 5 0 15 10
Introduction to vacuum tube and semiconductors used to control direct and

alternating current. Applications of diodes, triodes, tetrodes, pentodes and transistors in power suppliers, voltage amplifiers, power amplifiers, and oscillators, and the advantages, disadvantages, and use of each.

ELN 1104 Application of Control Devices 5 0 15 10
A study of vacuum tubes and semiconductor devices with characteristic curves and manufacturers data used to determine how and why a circuit configuration behaves in a predetermined manner. The applications and uses of the different configerations and simple design characteristics of each are included.

ELN 1105 Industrial Electronics and Instrumentation 5 0 15 10
A study of electronic components and circuits used in industrial applications. Included is a study of sensory devices and detectors, the associated circuitry and indicating devices, relays, switching and monitoring circuits, and other devices applicable to the field of industrial electronics.

ELN 1106 Maintenance and Analysis of Electronic Systems 5 0 15 10
A study in the analysis and maintenance of electronic systems. Included are component troubles and their effect on circuit behavior as related to electronic systems used in private entertainment and to equipment used in business and industrial applications.

ELN 1107 Communications 5 0 0 5
A study of the history, operating principles, and communication methods. Telephones, radio, television, telemetry, and other types of communications used in private and industrial applications are included.

ELN 1108 Digital Concepts 5 0 0 5
An introductory study of digital computer fundamentals including binary numbers, logic circuits, arithmetic circuits, bistable circuits, registers, memories, computer operation, micorprogramming, and programming.

ELN 1109 Television Broadcasting 5 0 0 5
A study of the operation of a broadcasting station. Included in the study are job classifications and the responsibilities of each position. Emphasis on student performance of these jobs and on the problems which evolve within certain departments of a broadcast station.

ELN 1111 Electronic Troubleshooting 3 0 0 3
A study of electronic troubleshooting methods and procedures for radio, Hi-Fi stereo, tape recorders, television, camera and video tape recorders, CB and mobile radio, electronic organs, digital circuits. Included is the use of electronic instruments, test equipment, tools and auxiliary items.

ELN 1118 Industrial Electronics 3 0 6 5
A study of basic theory, operating characteristics, and application of vacuum tubes such as diodes, triodes, tetrodes, pentodes, and gaseous control tubes. Includes an introduction to amplifiers using triodes, power supplies using diodes, and other basic applications.
Prerequisite: ELC 1113.

ELN 1119 Industrial Electronics 3 0 6 5
A study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyrathron tubes, and other basic types of systems commonly found in most industries.
Prerequisite: ELN 1118.

ELN 1125 Radio Receiver Servicing 5 0 0 5
A study of the principles of radio reception and practices of servicing. Included are block diagram and schematics of radio receivers, servicing techniques of AM and FM receivers by resistive measurements, signal injection and signal tracing, voltage analysis, and methods of locating faulty stages and components.

ELN 1127 Television Receiver Circuits and Servicing 10 0 18 16
A study of the principles of television reception and practices of servicing. Included are block diagrams and schematics of monochrome and color television receivers, servicing techniques by resistive measurements, voltage and image analysis, and methods of locating and repairing defective states or compounds.

ELN 1130 Small Appliance Repair 5 0 0 5
A study of the basic operating principles and repair techniques of small home-type appliances. Electric irons, toasters, percolators, vacuum cleaners electric mixers, blenders, and other home appliances are studied, with emphasis on the servicing and repair of these appliances.

ENGLISH

ENG 010 Reading 0 5 1
Students work on reading skills according to their needs.

ENG 011 Speech Communication 0 5 1
Students work on oral English with emphasis on conversation, discussion, telephone use, and interviewing.

ENG 012 Written Communication 0 5 1
Students improve their written English through keeping a journal, writing letters, paragraphs and essays.

ENG 013 Media Evaluation 0 5 1
Students study a variety of media including books, periodicals, radio, television and film, and evaluate them in terms of their values and the intended message of each communication.

ENG 014 Directed Individual Reading 5 0 1
Students apply their reading skills by reading and reporting informally.

ENG 015 Fundamentals of English Usage 5 0 1
Designed to improve students' written English usage; focuses on common problems in written American English.

ENG 100R-1 Reading Development 10 0 10
A review of reading fundamentals as needed by the student; individualized.

ENG 100R-2 Reading Development 3 0 3
An individualized course designed to improve the student's reading achievement through a variety of materials.
Prerequisite: ENG 100R-1 or equivalent.

ENG 100R-3 Reading Development 3 0 3
An individualized course designed to increase the student's reading efficiency, with emphasis on the reading necessary in his curriculum.
Prerequisite: ENG 100R-2 or equivalent.

ENG 100R-4 Reading Development 3 0 3
An individualized course design to promote the student's reading vocabulary and comprehension.
Prerequisite: ENG 100R-3 or equivalent.

ENG 100G Basic Grammar 3 0 3
Designed to offer basic instruction in grammar. Subject is approached in a practical manner, in enough detail to lay a foundation for an analytical look at language.
Prerequisite: ENG 100R-1 or equivalent.

ENG 100G-A Basic Grammar Lab 0 2 1
Designed to improve the student's skills in specific areas of basic grammar, as needed by individual. For students who score below 60 on English Grammar Placement Test, make I or F in Basic Grammar previous quarter, or upon request.

ENG 101 Grammar 3 0 3
Designed to aid the student in clarity of expression. The approach is functional with emphasis on grammar, diction, sentence structure, punctuation, and spelling. Intended to stimulate students in applying the basic principles of English grammar in day-to-day situations.
Prerequisite: ENG 100R-1 or equivalent.

ENG 101A Grammar Lab 0 2 1
Individualized course designed to improve the student's skills in specific areas of grammar.
Prerequisite: C or lower on 100G or upon student request.

ENG 101S Secretarial Grammar 5 0 5
Required of all beginning secretarial students as a prerequisite to the shorthand program. Special emphasis is placed on grammar, punctuation, and spelling. Students must earn a grade of 85 or above on this course before entering the shorthand program.
Prerequisite: Satisfactory evidence that admission requirements have been met (Placement tests or ENG 100R-3 and/or ENG 101).

ENG 102 Composition 3 0 3
Designed to aid the student in the improvement of self expression in business

and technical composition. Emphasis is on the sentence, paragraph, and whole composition.
Prerequisite: ENG 101.
Co-requisite: ENG 100R-3 or equivalent.

ENG 102A Composition Lab 0 2 1
Designed to improve the student's writing skills; individualized course.
Prerequisite: C or lower on ENG 101 or by student request.

ENG 103 Report Writing 3 0 3
The fundamentals of English are utilized as a background for the organization and techniques of modern report writing. Exercises in developing typical reports, using writing techniques and graphic devices are completed by the students.
Prerequisite: ENG 102 and at least two quarters of curriculum work.

ENG 104 Creative Expression 3 0 3
A study of literature as an art form to enable the student to see how artists from other disciplines deal with some of the problems of mankind and civilization. The approach is structured to show that as in any art, expression comes through form and organization.
Prerequisite: ENG 102.

ENG 105 Effective Reading 3 0 3
An individualized course for students wishing to improve their reading efficiency. Areas of concentration will be selected, based on each student's needs, from rate, vocabulary, comprehension, and reading-study skills, in specific subject areas.
Prerequisite: Permission of instructor or completion of curriculum reading requirements.

ENG 106 Spelling Techniques 3 0 3
Designed to improve spelling, ability. Participants study the relationship of spoken English to spelling, spelling patterns, and commonly misspelled words. They also study vocabulary in their areas of concentration such as medicine, law, or architecture.

ENG 204 Oral Communications 3 0 3
An introduction to interpersonal communication to enable the student to communicate with others effectively. Focus is on the nature of the communication process, including self-perception, group interaction, and language as a symbolic process.

ENG 206 Business Communication 3 0 3
A self-paced course designed to develop skills in writing business communications. Business reports, letters, and memoranda are included.
Prerequisite: ENG 102 and BUS 102.

ENG 217 Children's Literature 3 0 3
Designed to familiarize students with the well-known authors and illustrators of children's literature and to introduce them to the best quality books for young people. Emphasis is on the use of these materials with the children in order to obtain maximum pleasure and learning.

ENG 250 Introduction to Theatre 3 2 4
An introduction to basic technical theatre, including the field of the techniques of production. Stage scenery, design, set construction, stage techniques, makeup lighting, costuming, prop construction, and theatre jargon are included.

ENG 250A Introduction to Theatre Lab 0 5 0
The student learns practical stage craft and scenery design through application of techniques learned in ENG 250.
Co-requisite: ENG 250.

ENG 251 Basic Acting Techniques 3 2 4
A basic course in acting techniques as applied to technical theatre and stage craft production. The beginning student learns stage terminology and receives training in techniques, processes, operation, and application of play production.
Prerequisite: ENG 250.

ENG 251A Basic Acting Techniques Lab 0 5 0
The student learns basic acting techniques through practical application.
Co-requisite: ENG 251.

ENG 252 Problems in Production 3 2 4
An advanced course of study in stage scenery and design with the major emphasis on special and advanced technical theatrical problems of production. Special effects, advanced lighting techniques, set construction difficulties, sound effects, and theatrical management are emphasized. Publicity and public relations are also included.
Prerequisite: ENG 250.

ENG 252A Problems in Production Lab 0 5 0
The student learns advanced stage design through practical application.
Co-requisite: ENG 252.

ENG 253 Acting and Directing Techniques 3 2 4
An advanced course in acting and directing techniques. The major emphasis is on play selection, community involvement, publicity, other communicative media (television, radio, motion picture). In addition students become fully acquainted with all aspects of the financial management of a theatre.
Prerequisite: ENG 251.

ENG 253A Acting and Directing Techniques Lab 0 5 0
The student learns advanced acting and directing techniques through practical application.
Co-requisite: ENG 253.

ENG 254 Advanced Directing Techniques 3 2 4
A study of drama from the director's point of view. Students assist in directing scenes & acts of short plays and in scene synopsis.
Prerequisite: ENG 253.

ENG 254A Advanced Directing Techniques Lab 0 5 0
Students learn advanced directing techniques through practical application.
Co-requisite: ENG 254.

ENG 255 Playwriting Techniques 3 2 4
A study of the play as a form of creative expression; includes analysis of the play for plot, action, and character development. Each student writes a one-act play of his own and directs the play.
Prerequisite: ENG 254.

ENG 255A Playwriting Techniques Lab 0 5 0
The student learns advanced playwriting techniques through practical application.
Co-requisite: ENG 255.

ENG 1000 Reading Improvement 10 0 10
A review of reading fundamentals as needed by the student; individualized.

ENG 1100 Reading and Communication Skills 5 0 5
Designed to improve the student's communication skills including reading and completing job applications, interviews, letter-writing, and customer communications.

ENG 1101 Reading Improvement 2 0 2
Designed to improve the student's reading skills through use of various materials; individualized.
Prerequisite: ENG 1000 or equivalent.

ENG 1102 Communication Skills 3 0 3
Designed to promote effective communication through appropriate language usage in work situations. Learning experiences include completing job applications, interviews, letter-writing, and customer communications.
Prerequisite: ENG 1101 or equivalent.

ENG 1108 Efficient Reading 2 0 2
An individualized course for students wishing to improve their reading efficiency. Areas of concentration will be selected, based on each student's needs, from rate, vocabulary, comprehension, and reading-study skills in specific subject areas.
Prerequisite: Permission of instructor or completion of curriculum reading requirements.

ENG 1109 Micro-Fiche Reading Techniques 2 4 0 4
A course designed to teach the student the efficient use of the different types of Micro Readers and Micro-fiche. Lab situations will enable the student to gain speed and accuracy.

ENVIRONMENT

ENV 101 Environment Orientation 4 2 5
This course includes an introduction to ecology of natural systems followed by a more detailed study of man's interrelationship with the environment and the necessity of control of man's effect on the environment. Topics covered include disease and disease transmission, sanitation (food and milk), insect and rodent control, occupational health and safety, agricultural ecology, food additives,

pesticides, water pollution, solid waste, air pollution, noise pollution, radiation pollution, energy, and conservation. Employment with government and private agencies concerned with the environment is also covered.
Prerequisites: None.

ENV 102 Microbiology **3 3 4**
Identification and classifiction of microorganisms (bacteria; fungi, algae, protozoa, virus) and a study of their relationship to food, air and water borne infections of man. Bacterial analysis of water, milk and air samples.
Prerequisites: ENV 101 and ENV 104.

ENV 103 Water Resources Management **4 2 5**
A course presenting the water needs of the nation, the various sources of water supply, the elements of water supply treatment to include: aeration, coagulation, flocculation, sedimentation, filtration, disinfection, flouridation, chemical treatment, and control of taste and odor, bacterial and mineral contaminants, desalinization and operational problems of a water treatment plant including rules, regulations, maintenance and record keeping.
Prerequisites: ENV 101, 102, 104, CHM 102.

ENV 104 Environmental Biology **3 3 4**
A study of the conditions of life in the aquatic environment as they relate to biological approaches to water pollution problems. Techniques for determining physical, chemical and biological aquatic environmental conditions, collection and classification of aquatic microorganism. Safe boat handling procedures related to sample collection.
Prerequisite: None.

ENV 112 Air Resources Management **3 2 4**
An introductory course to the field of air pollution technology. Air Resources Management is the effort to abate existing pollution and to prevent future pollution. Such a program must define the problem and determine the quality of air that is most desirable. Types of air contaminants, their source of emission, and their ill effects are identified. Source emission inventories, sampling and analysis, control techniques, meteorological effects, and facets of an air pollution program are introduced.
Prerequisite: ENV 101.

ENV 195 Environmental Practicum **0 40 13**
A cooperative program supported by local industries and city, county, state, and federal agencies engaged in environmental fields to provide summer practical experience in a related area.

ENV 200A Environmental Projects **0 3 1**
ENV 200B Environmental Projects **0 6 2**
ENV 200C Environmental Projects **0 9 3**
Courses designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Resources Technology department faculty.

ENV 204 Water Sampling and Analysis **2 4 4**
Theory and laboratory techniques pertaining to water purification including pH, alkalinity, hardness, turbidity, carbon dioxide, color, odor, taste, fluoride,

choloride, iron, manganese, and surfactants. Bacterial analysis covered in ENV 104, coagulation, chlorine residual-demand-requirement covered in ENV 103.
Prerequisites: ENV 101, 102, 103, 104, CHM 102, 103.

ENV 205 Waste Water Sampling and Analysis 2 4 4
Theory and laboratory techniques pertaining to waste water treatment to include sampling and analysis of DO, BOD, COD, phosphate, solids, nitrogen compounds, sulfate, chloride, flouride, volatile acids, chlorine residual, and chlorine requirement.
Prerequisite: ENV 101, 102, 104, and 217, CHM 102 and 103.

ENV 206 Industrial Waste Water and Field Sampling and Analysis 3 3 4
Field trips to collect samples of industrial waste water followed by laboratory analysis for heavy metals (iron, aluminum, sodium, potassium, lead, mercury) by atomic absorption spectroscopy, analysis for phenols, grease, relative stability, industrial milk and food tests; desalination plant studies; stream and lake surveys.
Prerequisites: ENV 101, 103, 104, 205, 217, CHM 102, 103.

ENV 212 Air Pollution Sources and Control 3 3 4
An introduction to the major industrial processes and energy producing reactions which are potential sources of air pollution, including chemical processing, petroleum, metals, production, pulp and paper, food and feeds, and automobiles. Various types of control equipment are studied, which allows a student to achieve an understanding of specific problems relating to the control of air pollution within each industry.
Prerequisites: ENV 101 and 112.

ENV 217 Waste Water Treatment 4 2 5
A course presenting the liquid waste problem and methods of treatment of liquid waste: sewage composition, sewage types, decomposition dilution, land disposal, pretreatment, flow measurements, primary treatment, aeration, biological purification, digestion, filtrations, disinfection, agricultural and industrial waste management, plant records, laws and regulations.
Prerequisites: ENV 101, 102, 103, 104, CHM 102.

ENV 220A Environmental Projects 0 3 1
ENV 220B Environmental Projects 0 6 2
ENV 220C Environmental Projects 0 9 3
Courses designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Resources Technology department faculty.

ENV 225 Agricultural Pollution 3 2 4
Study of the relationship between agriculture and environmental pollution. Topics covered include soils, control of animal wastes and feedlot management, pesticide use and misuse in the environment, biological control of agricultural pests, fertilizer runoff and control, stream sedimentation, the use of land for disposal of municipal wastewater, and state and federal regulations related to agricultural pollution.

ENV 226 Atmospheric Air Sampling and Analysis 2 6 5
Principles and methodology of atmospheric air sampling and analysis, practical application of gas laws to air movers and air measuring instruments, selection of sampling cites, calibration, operation and maintenance of air sampling equipment and laboratory analysis of major air pollutants such as SO2, NO2, 02, aldehydes, acrolein. Familiarization with continuous monitoring equipment.
Prerequisites: ENV 101 and 112.

ENV 230A Environmental Projects 0 3 1
ENV 230B Environmental Projects 0 6 2
ENV 230C Environmental Projects 0 9 3
Courses designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Resources Technology department faculty.

ENV 236 Air Pollution Source Sampling and Analysis 2 6 5
Source sampling principles and methodology, gas laws and their practical application to measurement of gas velocities and flow rates, site selection and preparation, calibration, maintenance and operation of stack sampling equipment and mobile source sampling equipment, also collection, measurement, and analysis of most common air pollutants such as ammonia, NOx, SOx, HC, CO, flourides, and chlorine.
Prerequisites: ENV 212.

ENV 240A Environmental Projects 0 3 1
ENV 240B Environmental Projects 0 6 2
ENV 240C Environmental Projects 0 9 3
Courses designed for students who wish to specialize or expand their knowledge in certain areas of environmental studies. Hours and course requirements to be arranged with Air and Water Resources Technology department faculty.

FORESTRY

FOR 208 Forest Surveying 2 3 3
Relocation of old corners and lines and the legal aspects of land surveys. Forest road layout.

HEALTH

HEA 105 Family, School, and Community Health 3 0 3
Study of influences on physical and mental health, individual practices which aid in maintaining good physical and mental health throughout the life span, and responsibilities of those working with young children to maintain personal health and to serve as models for health practices.

HEA 110 First Aid and Medical Terminology 2 2 3
A course designed to provide the student with the basic skills necessary to provide first aid in common emergencies. Instruction will also include an introduction to anatomy and basic medical terminology used in legal matters.

HOME ECONOMICS

Home 5 Food 2 6 5
Selection of food products and principles involved in the preparation of food.

Home 105 Nutrition 3 0 3
The elementary principles of nutrition and their practical application.

Home 205 Advanced Food 2 6 5
Emphasis on management of time, buying of supplies, care of home food supply, menu planning, and food service suitable to different occasions.
Prerequisites: Home 5 and Home 105.

Home 303 Food for Children 2 2 3
Designed to give students an understanding of nutritional needs and food habits of young children through application of research findings. Practical experience in food service management for feeding children is included as group and individual projects.
Prerequisite: Home 5.

Home 327 Food Purchasing and Cost Control 1 4 3
A study of the market organization, wholesale market functions, and the purchase of food for institutional use with emphasis on factors determining quality, grade, and cost.

Home 328 Quantity Food 2 6 5
Management in quantity food production by standard methods of food productions. Includes institutional menu planning, food preparation, merchandising, food cost and control, equipment care and sanitation, and food service personnel management.

Home 330 Institution Management and Organization 3 0 3
Principles of scientific management of food services: hospital, school lunch, student residence, and commercial units. Emphasis on business organization, personnel relationships, and keeping records.

Home 360A Independent Study (Institution Equipment) 3 0 3
Investigation of specific considerations which must be taken into account when selecting and placing equipment in a food service.
Prerequisite: Consent of Instructor.

HUMAN SERVICES

HSA 100 Basic Health Science 3 0 3
An introduction to the normal structure and functioning of the human body, briefly covering all systems. The normal body is studied as the basic for understanding variations from normal and man's need to maintain homeostasis. Included within each system is pertinent information concerning hygiene, nutritional requirements, basic first aid and medical terminology.

HSA 111 Introduction to Human Services 3 3 4
An introduction to the history of human services and related theories and systems. Agencies, institutions, and programs which help meet human service needs are studied in broad context of social and political systems. Guest lecturers are representative of human services occupations and field trips to agencies and institutions delivering human services offers a familiarization with the components of the delivery system.

HSA 112 Group Processes I 1 3 2
An introduction to interpersonal concepts and problems of communication in interpersonal transactions. This course is designed to allow the student to become more aware of himself, his feelings about himself and other people that he comes in contact with in his daily living. To facilitate this self-awareness and personal growth, the student will work in small groups learning through analyses of their own experiences including feelings, reactions, perception and behavior.

HSA 112P Practicum I 0 6 2
The student will spend six hours per week in clinical laboratory experiences under the supervision of a qualified instructor. Emphasis will be on the application of concepts and principles from related course content.
Prerequisite: Permission of instructor.

HSA 113 Group Processes II 1 3 2
A continued study of interpersonal relationships in small group interactions. The student will work in small groups during the quarter, learning through analyses of their own experiences, including feeling, reactions, perceptions, and behavior using the framework of Transactional Analysis.
Prerequisite: Group Processes I or permission of instructor.

HSA 113P Practicum II 0 6 2
Continuation of Practicum I.
Prerequisite: Permission of instructor.

HSA 114 Interviewing and Counseling 3 2 4
Study of purpose, structure, focus, and techniques employed in effective interviewing. Laboratory experiences providing opportunities for observation practice, recording, and summarizing personal histories under faculty supervision. Importance of interview as client's initial encounter with system is stressed-interviewing to meet need of client rather than of system.

HSA 115 Internship in Human Services/Mental Health 7 33 18
Each student has an opportunity to work in a human services agency, institution, or program under the supervision of agency staff and college personnel. The student has an opportunity to apply and practice what has been learned in the program while learning from the professionals in the field.

HSA 116 Group Processes III 1 3 2
A final formal group experience for the student. Attention is given to the development of the students' ability to communicate with others as well as to facilitate communication between others.

HSA 220 Activities in Human Services 2 2 3
Overview of the types of activities; occupational, recreational, play, music, drama, non-verbal, utilized as therapeutic techniques with particular emphasis on the purpose of each, ways of creating and holding interests in the activity, and the role of the Human Service/Mental Health Associate in assisting patients to participate.

HSA 225 Crisis Intervention 2 2 3
This course is designed to introduce the student to the basic theories and principles of crisis intervention from a historical as well as practical orientation. This course provides the student with necessary skills in crisis intervention as practical application is correlated with theory. This course allows the students to prepare themselves emotionally and psychologically to handle emergency crisis situations.

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety 3 0 3
This course deals with the many elements of an industry-wide safety program. It provides an indepth treatment of job safety analysis, plant inspection, plant arrangement, housekeeping, and the maintenance of and handling of materials. Special emphasis will be given to compliance with the new Occupational Safety and Health Act, and to paperwork procedures and processes.

ISC 110, 120, 130, 140, 150
Readings in Industrial Management 1 0 1
This course is designed for students who wish to specialize or expand their knowledge in industrial management under the supervision of the industrial management faculty. The course is structured to enable the student to study materials related to concepts in industrial management.

ISC 201 Industrial Organization and Management 3 0 3
Organizational structure for industrial management including operational and financial activities. Accounting, budgeting, credit and industrial risks, forcasting and markets, selection and layout of physical facilities, selection training and supervision of personnel as found in typical industrial organizations.

ISC 202 Quality Control 3 0 3
The course provides an overview of quality control activity and its scope throughout the entire business system of a compnay. Among the topics discussed are the elements of quality control work, the organization required to get the work accomplished, methods of measuring the effectiveness of the function, and integration of the various quality related activities of the organization into a quality system.
Prerequisite: MAT 101.

ISC 203 Motion Economy 3 0 3
This course provides a systematic, practical, and logical treatment of motion and time study as utilized in today's business and industrial enterprise. It

covers direct and indirect work and office activities and looks at the broad range of work measurement techniques. Recently developed concepts and techniques will be evaluated.

ISC 204 Value Analysis 3 0 3
In this course, the common sense approach to cost reduction is utilized. It provides the student with an opportunity to review indepth the concept and techniques of value analysis and engineering. Emphasis is placed upon identifying and removing unnecessary production costs.

ISC 205 Maintenance Management 3 0 3
Administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering resources analysis, and maintenance facilities will be covered.

ISC 209 Plant Layout 4 0 4
This course provides a practical study of factory planning with emphasis on the most efficient arrangement of work areas to achieve lower manufacturing costs. Sample layouts for small and medium sized industries will be covered. In addition, the effective use of men, money, machinery, and materials will be studied.

ISC 213 Production Planning 4 0 4
The course provides an introduction to the production function of the business or industry in its day-to-day manufacturing process. Functions reviewed are forecasting, product planning and control, scheduling, dispatching, and routing. Case histories are discussed in the classroom and courses of corrective action are developed. Actual layouts are utilized for planning and control.

ISC 214 Industrial Applications I 0 12 4
This course is designed to provide internship experiences for the second year business and management student under industrial conditions. This will allow the student to develop on-the-job innovative projects related to the areas of health and safety, employee morale, production planning, cost reduction, or quality control. The scientific approach to problem solving will be utilized.
Prerequisite: At least 40 hours of curriculum work.

ISC 215 Industrial Applications II 0 12 4
This course is designed to provide internship experiences for the second year business and management student under industrial conditions. This will allow the student to develop on-the-job innovative projects related to the areas of health and safety, employee moral, production planning, cost reduction, or quality control. The scientific approach to problem solving will be utilized.

ISC 216 Industrial Applications III 0 12 4
This course is designed to provide internship experiences for the second year business and management student under industrial condition. This will allow the student to develop on-the-job innovative projects related to the areas of health and safety, employee morale, production planning, cost reduction, or quality control. The scientific approach to problem solving will be utilized.

ISC 231 Manufacturing Processes 5 0 5
This course provides a basic understanding of industrial materials, machines, and process utilized in today's manufacturing and assembling plant. It reviews

the rapid development of new materials, mechanization and automation, and the complex process of manufacturing.

ICS 232 Labor Relations 4 0 4
This course covers the history of the labor movement in the United States with its structural and legal framework. It examines the negotiation administration, and major contents of the labor contract itself. Special studies or arbitration cases which illustrate the theories in realistic terms will be provided.

JOURNALISM

JOU 101 Introduction to Journalism 3 0 3
Basic familiarization with principles of the newspaper in categories such as basic newswriting, principles of production, layout and design, staff organization, sports writing, feature writing, editorial writing, and the purposes and function of a newspaper.

JOU 101A Introduction to Journalism Lab 0 2 0
Application of skills acquired in Introduction to Journalism.

JOU 102 Essentials of Newswriting 3 0 3
An analysis of the newswriting procedure, including fact gathering, style, purpose, principles, editing, and maintenance of objectivity.

JOU 102A Essentials of Newswriting 0 2 0
Application of skills and knowledge pertaining to newswriting.

JOU 103 Newspaper Layout and Production 3 0 3
An analysis of the basic principles of layout and design. Students will attain a functional knowledge with the process involved in offset and letterpress lithography.

JOU 103A Newspaper Layout and Production Lab 0 2 0
Application of skills and knowledge pertaining to newspaper layout and production.

JOU 201 Feature Writing 3 0 3
An analysis of feature writing with concentration on columns, human interest features, news features, and creative journalism.

JOU 201A Feature Writing Lab 0 2 0
Application of skills and knowledge pertaining to feature writing.

JOU 202 Editorial Writing and Policy 3 0 3
An analysis of editorial style and content with concentration of structure, point of view, policies, and editorial liability.

JOU 202A Editorial Writing and Policy Lab 0 2 0
Application of skills and knowledge pertaining to editorial writing and policy.

JOU 203 Special Topics Seminar 3 0 3
An analysis of special area of journalism including opportunities in journalism,

photography, journalistic art, advertising, creative journalism, and non-newspaper journalist media.

JOU 203A Special Topics Lab **0 2 0**
Application of skills and knowledge pertaining to special topics.

LEGAL EDUCATION

LEC 203 Legal Research **2 2 3**
Methods of Legal research, proper citation of authority, acquaintance with legal treaties, text, and reporter, shepardizing cases.

LEC 204 Advanced Business Law **3 0 3**
An analysis of basic concepts of business corporations, partnerships and joint ventures, and sole proprietorships with emphasis on drafting articles of incorporation, by-laws, minutes, resolutions, stock certificate and partnership and joint venture agreements. Also deals with problems in business finance and acquisitions and in related areas of commercial law, stock transfer and purchase agreements, and employment contracts. Consideration of general tax and the role of the lawyer and paralegal.
Prerequisite: BUS 116.

LEC 207 Law Office Management **3 0 3**
This course includes the study of the organization of a law office, office forms and legal forms, filing equipment and system, accounting systems for a lawyer's time, fees, and billing, silent relations and office procedure. This will also familiarize the student with the operation of office machines and equipment.

LEC 210 Real Property & Title Abstracting I **2 2 3**
An examination will be made of the applicable statutory and common law principles including the form and adequate execution of documents; the functions of judgments and estates in the determination of whether a title to real estate is marketable; the study and function of various documents, indices and files on public records in various county offices. Forms of abstracting title information from public records and summaries thereof will be included. Various typical problems and errors which may render a title unmarketable will be included.

LEC 211 Real Property & Title Abstracting II **2 2 3**
Continuation of LEC 210.

LEC 212 Real Estate Transactions **3 0 3**
Includes the study of the preparation of simple contracts for sale of real estate; ordering title search; examining title searches and preparing simple titles, ordering title insurance; preparation of settlement sheet and holding closing. Inform purchasers of needed documents and funds; disbursement of funds and recording documents; preparation of certificate of title for lawyer's signature. The course also covers the draftings of mortgages and deeds of trust, the closing procedures for these land financing transactions and foreclosure upon default.

LEC 220 Family Law 3 0 3

The study of the rights and obligations of the marriage contract; divorce; annulment; separation by court order and by consent; defenses to divorce; child custody; adoption, name change and bastardy proceedings; alimony, child support, ADC and welfare; NC juvenile law.

LEC 224 Torts 3 0 3

A study of the principles behind personal injury settlements and litigation with an emphasis on North Carolina Law.

LEC 229 Taxes 3 2 4

Application of Federal and State taxes to various businesses and business conditions. A study of the following taxes: income, payroll, intangible, capital gain, sales and use, excise, and inheritance.

LEC 232 Estate Administration 3 0 3

In this course, the student will be instructed in the drawing of will, making arrangements with the probate office for probate of will, or issuance of Letter of Administration, preparing simple transfer of inheritance tax forms, marshaling of assets, payment of debts of Estate, preparation of interim and final accounting and preparation of refunding bonds and releases.

LEC 240 Litigation Preparation 3 0 3

This course will teach the paralegal how a lawyer prepares his briefs prior to entering court proceedings. The student will be taught how to review a file, prepare subpoenas ready for the lawyer's signature, prepare exhibits for court, file pleadings, index interrogatories, depositions, admissions, pleadings. The course will prepare the student to interview witnesses and record statements in writing and on tape.

LEC 250 Paralegal Internship 1 9 4

Students will spend nine hours per week in an approved law office under the supervision of an attorney. Emphasis will be placed on exposing the student to a variety of experiences which would be encountered in the legal profession.
Prerequisite: The internship is an add-on elective. Students completing their last quarter of work prior to graduation who have a 3.0 or higher grade point average may elect to take this course.

MASONRY

MAS 1101 Bricklaying I 3 0 21 10

The history of the bricklaying industry. Clay and shell brick, mortar, laying foundations, laying bricks to a line, bonding, and tools and their uses. Laboratory work will provide training in the basic manipulative skills.

MAS 1102 Bricklaying II 3 0 21 10

Designed to give the student practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, wall, chimneys, arches, and cavity walls. The proper use of bonds, expansion strips, wall ties, and caulking methods are stressed.
Prerequisite: MAS 1101.

MAS 1103 Bricklaying III 2 0 21 9
Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta, and modular masonry construction theory and techniques.
Prerequisite: MAS 1102.

MAS 1104 Bricklaying IV 2 0 21 9
Continued application of techniques acquired in MAS 1103 with emphasis on further refining the skills of a mason.

MAS 1113 Masonry Estimating I 1 0 3 2
This is a practical course in quantity "take off" from prints of the more common type jobs for bricklayers and masons. Figuring the quantities of materials needed and costs of building various components and structures.
Prerequisite: MAS 1103.

MAS 1114 Masonry Estimating II 1 0 3 2
A continuation of MAS 1113 with some emphasis being given to quantity "take off" from prints of the more complicated kind.

MATHEMATICS

MAT 099 Developmental Mathematics 5 0 5
A course designed for the student whose background in the area of mathematics is limited. This course does not carry credit towards an associate degree.

MAT 100R Computational Skills 5 0 5
Whole numbers, fractions, decimals and percents.

MAT 100 Review of Fundamental Mathematics 5 0 5
Fractions, decimals, percents, ratios, proportions, and an introduction to algebra.

MAT 101 Algebra I 5 0 5
Basic algebraic operations, linear equations, factoring, algebraic fractions, graphing, systems of linear equations, exponents, and radicals.
Prerequisite: MAT 100.

MAT 102 Trigonometry 5 0 5
The trigonometric functions, solutions of right triangles, trigonometric functions of any angle, vectors, solutions of oblique triangles, graphs of functions, graphs of the trig functions, and additional topics in trigonometry.
Prerequisite: MAT 101.

MAT 103 Algebra II 5 0 5
Exponentials, roots, quadratic equations and inequalities of one variable, first degree relations and functions, second degree relations and functions, systems of equations, and logarithmic functions.
Prerequisite: MAT 101.

MAT 104 Calculus I 5 0 5
Equations of higher degree, the derivative with application, and integration with application.
Prerequisite: MAT 102 and MAT 103.

MAT 110 Business Mathematics 5 0 5
This course stresses the fundamental operations and their application to business problems. Topics covered include payrolls, price marketing, interest and discount, commission, taxes, and pertinent uses of mathematics in the field of business.
Prerequisite: MAT 100R.

MAT 111 Computer Mathematics 5 0 5
Sets, number systems, logic, and flow chart.

MAT 114 Basic Math for Health Professions 3 0 3
The basic operations of addition, subtraction, multiplication, and division are studied with respect to whole numbers, common fractions, and decimals. Includes a study of percents, ratios, proportions, Roman and Arabic numerals, temperature conversions, systems of measurement, and methods of calculating dosages.

MAT 120 Metric Mathematics 3 0 3
Involves familiarization with metric units and usage, conversions to and from the British Engineering System of units, and basic algebraic solutions for the unknown as applied to problems involving units.

MAT 201 Calculus II 5 0 5
A continuation of MAT 104. More advanced concepts of differentiation and integration. Introduction to solutions of differential equations and to Fourier Series.
Prerequisite: MAT 104.

MAT 204 Technical Calculations 3 0 3
Presentation and practice in performing calculations pertinent to the field of technology. Use of calculators and tables for computations are included.
Prerequisite: MAT 201.

MAT 210 Concepts of Modern Math 4 2 5
An introduction to elementary school mathematics. Sets, number systems, prime numbers, the four basic operations of arithmetic, equations, and an introduction to geometry.
Prerequisite: MAT 100R.

MAT 0099 Developmental Mathematics 5 0 0 5
A course designed for the student whose background in the area of mathematics is limited. This course does not carry credit towards a diploma.

MAT 1000 Computational Skills 5 0 0 5
Whole numbers, fractions, decimals, and percents.

MAT 1101 Fundamentals of Mathematics 5 0 0 5
Whole numbers, fractions, decimals, percents, ratios, proportions, exponents,

square roots, and evaluation of formulas.
Prerequisite: MAT 1000.

MAT 1102 Algebra 5 0 0 5
Basic algebraic operations, linear equations, exponents, graphing, systems of equations, and radicals.
Prerequisite: MAT 1101.

MAT 1103 Basic Geometry and Trigonometry 5 0 0 5
Basic definitions and properties of plane and solid geometric figures, areas of plane figures, volumes of solids, trigonometric functions of any angle, and solution of right and oblique triangles.
Prerequisite: MAT 1101.

MAT 1110 Math for Parts Counterman 5 0 18 11
This course stresses the fundamental operations and their application counterman problems. Topics covered include percents, discounts, taxes, mark-ups, mark downs, calculators, cash registers, handling money, pricing, and extending.

MAT 1112 Building Trade Mathematics 3 0 0 3
Practical problems dealing with volumes, weights, ratios, mensuration, and basic estimating practices for building materials.
Prerequisite: MAT 1101.

MAT 1113 Building Trades Mathematics 3 0 0 3
A continuation of the skills acquired in MAT 1112 with additional emphasis on estimating practices for building materials.
Prerequisite: MAT 1112.

MAT 1123 Machinist Mathematics 3 0 0 3
Introduces gear ratio, lead screw and indexing problems with emphasis on applications to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems; concludes with an introduction to compound angle problems.
Prerequisite: MAT 1102 and 1103.

MECHANICS

MEC 101 Machine Processes 3 3 4
An introductory course designed to acquaint the student with basic hand tools, safety procedures, and machine processes of our modern industry. It will include a study of measuring instruments, characteristics of metals, and cutting tools. The student will become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.

MEC 102 Machine Processes 3 3 4
Advanced operations on lathe; drilling, boring, and reaming machines. Milling machine theory and practice. Thorough study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.
Prerequisite: MEC 101.

MEC 114 Shop Practice 1 6 3

Shop practice is designed to acquaint the student with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy will be emphasized. Slip and press fits will be produced to include bearing assembly. Miscellaneous hydraulic, pneumatic and lubrication devices will be studied. Machine location, leveling and fastening will be discussed. Integration of machining and fabrication will be developed by related shop projects. Implementation and operation of preventative maintenance systems will be studied.

Prerequisite: MEC 112.

MEC 210 Physical Metallurgy 3 3 4

Introductory course in metallurgy, basic study of the properties of metals and alloys. Analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions. Solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems.

MEC 222 Rigging and Material Handling 2 3 3

Transporting, conveying, transferring, self loading and bulk handling equipment will be introduced. Use of wire rope, slings, chains, scaffolds, and ladders will be investigated. Proper storage of materials will also be covered.

MEC 225 Practicum 0 6 2

This course consists of supervised work experience alternating with the educational program on a schedule satisfactory to employers, the institution, and the student. This period of time will enable the student to perform a planned variety of activities required of his speciality. The work periods will be carefully planned and closely supervised by the employer and the institution to provide experiences and responsibilities commensurate with the capabilities of the student. An official agreement among the education institution, the student, and the employer will identify the sequence of activities to be performed by the student and define the supervisory responsibilities for the educational element of work.

Prerequisite: Student registered in a technical program in the institution.

MEC 235 Hydraulics and Pneumatics 3 3 4

The basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators and reservoirs.

MEC 298 Maintenance Problems I 2 3 3

The purpose of this course is to broaden the experiences of the student in the areas of mechanics. Problems involving various types of equipment will be given to demonstrate the checklist method of maintenance and preventive maintenance. The use of precision measuring tools and checking for accuracy, squareness, and correct center line distances is stressed for prestart inspection. This course is a wide based study in everyday manufacturing problems and solutions. This course will include a major part of emphasis on live projects. Projects will include selection, by the study, the proper feeds, speeds, linkage, and controls of power transmissions, as well as bearings and gears, installation and repair. Special emphasis will be an interpretation of catalog information and reference material.

MEC 299 Maintenance Problems II 2 3 3
Continuation and indepth study of MEC 298 Maintenance Problems I.

MEC 1101 Machine Shop Theory and Practice 3 0 12 7
An introduction to the machinist trade and the potential it holds for craftsmen. Deals primarily with the identification, care, and the use of basic hand tools and precision measuring instruments. Elementary lay-out procedures of lathe, drill press, grinding (off-hand), and milling machines will be introduced both in theory and practice.

MEC 1102 Machine Shop Theory and Practice 3 0 12 7
Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. The student will be introduced to the basic operations on the cylindrical grinder and will select projects encompassing all the operations, tools, and procedures thus far used and those to be stressed throughout the course.
Prerequisite: MEC 1101.

MEC 1103 Machine Shop Theory and Practice 3 0 12 7
Advanced work on the engine lathe, turning, boring and threading machines; grinders; milling machine; and shaper. Introduction to basic indexing and terminology with additional processes on calculating, cutting, and measuring or spur, helical, and worm gears and wheels. The trainee will use precision tools and measuring instruments such as vernier height gauges; protractors, and comparators. Basic exercises will be given on the turret lathe and on the tool and cutter grinder.
Prerequisite: MEC 1102.

MEC 1104 Machine Shop Theory and Practice 3 0 12 7
Development of class projects, using previously learned procedures in planning, blueprint readings, machine operations, final assembly, and inspection. Additional processes on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, and advanced milling machine operations. Special procedures and operations, processes and equipment, observing safety procedures faithfully, and establishing good work habits and attitudes acceptable to the industry.
Prerequisite: MEC 1103.

MEC 1105 Machine Shop Theory and Practice 3 0 15 8
This course stresses the development of skills and understanding of machine precision parts. Advanced machine processes are taught using the standard machine tools as well as specialized or production equipment, as applicable. Methods and procedures of checking and inspecting precision parts. Good housekeeping and safe working habits are stressed at all times.
Prerequisite: MEC 1104.

MEC 1106 Machine Shop Theory and Practice 3 0 12 7
Emphasis is placed on production methods and on machines which includes setup and operation for mass production. Instruction will be given on the turret lathe, milling machines, cylindrical grinders, and other production machines. Considerable attention also to be given to specialized equipment, such as N/C machinery, electrical discharge machines, gear hob or shaper, or others as available.
Prerequisite: MEC 1105.

MEC 1107 Jigs and Fixtures 2 0 6 4
Designed to develop understanding of principle and use of jigs and fixtures. Instructions in designing and drawing simple jigs and fixtures, as well as practice in their manufacture for use on course projects. Development of confidence and pride in producing high quality parts with the use of jigs and fixtures.

MEC 1112 Machine Shop Processes 1 0 3 2
To acquaint the student with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamental of drill press and lathe operations, hand grinding of drill bits and lathe tools, and set-up work applied to the trade.

MEC 1113 Shop Processes 2 0 3 3
Study of practices used in metal working shops introduction to materials utilization and to the processes of shaping, forming and fabrication metals. Demonstration of the metal working lathes, grinders, drills, milling machines and finishing machines, shapers, planers, saws, broaches, and gear cutting machines. A study of the capabilities of these machines.

MEC 1114 Shop Processes 0 0 3 1
Comparison of the unit-production and mass-production systems. Casting, forging and allied processes, welding and sheet metal working processes are demonstrated and discussed. Mass-production methods are studied in relationship to precision dimensional control.
Prerequisite: MEC 1113.

MEC 1115 Metallurgy - (Ferrous Metals) 2 3 0 3
Investigates the properties of ferrous metals and tests to determine their uses. Instructions will include some chemical metallurgy to provide background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, heat treatments for steel, surface treatment, alloy of special steel, classification of steels, and cast iron will be the topics for study.

MEC 1116 Metallurgy - (Non-Ferrous Metals) 2 3 0 3
Continuation of the study of physical metallurgy. The non-ferrous metals: bearing metals (brass, bronze, lead), light metals (aluminum and magnesium), and copper and its alloys are studied. Power metallurgy, titanium, zirconium, indium, and vandium are included in this course.
Prerequisite: MEC 1115.

MEC 1147 Systems of Measurement and Measuring Tools 2 0 0 2
A basic study of measurement and the various systems. How to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Included is the reading of the basic electrical meters used in testing.

MEC 1221 Machine Maintenance 2 0 3 3
To instruct the student in the fundamentals of repairing machine tools and related equipment or accessories. Emphasis to be on manufacture of replacement parts, alignment or adjustment of pulleys, gears, gibs, and clutches; and modification or restoration of older equipment.

MEC 1425 Statics and Strength of Materials 3 2 0 4
An elementary study of systems of forces acting on bodies, machines, and structures at rest. Study of stresses and deformation which occur within machine and structural elements subjected to various types of loads. Topics covered included moments, equilibrium, stress, strain, shear, and moment of inertia.
Prerequisites: MAT 1101, MAT 1102, MAT 1104, and PHY 1102.

MENTAL HEALTH

MHA 131 132 133 Readings in Mental Health 0 2 1
These courses are designed for students who wish to specialize or expand their knowledge in certain areas of mental health. Under the supervision of mental health faculty members, the approach is structured to enable the student to study materials which are relative to concepts in mental health and to write critical analyses of them. Time allotted for student independent study and individual conferences with the supervising instructor will be arranged.

MHA 201 Mental Health Care I 4 3 5
Orientation to the policies, procedures, and practices commonly accepted in mental health institutions; in introduction to basic patient care principles and techniques underlying good patient care in meeting the needs of patients during observation, ambulation and mildly mentally ill stages. Lab experiences will present practice patient basic patient care under the direction of a qualified faculty member.
Prerequisite: HSA 100 Basic Health Science.

MHA 208 Change Agentry Lab 0 3 1
A four-day human relations training lab which occurs in a retreat setting off campus. The lab is staffed by qualified trainers and the students are afforded an experience to practice the interpersonal and group skills they have learned in courses in Group Processes.
Prerequisite: Permission of instructor.

MHA 209 Treatment Modalities 2 4 4
An analysis and application of the major approaches to psychotherapy and counseling involving theory, characterisitics and techniques.

MHA 210P Practicum III (Optional) 0 6 2
Student placed six hours per week in an agency to obtain practical job experience related to course work and to be supervised by qualified agency personnel.

MHA 211P Practicum IV 0 6 2
The student will be assigned six hours per week in a faculty-supervised clinical situation for application of knowledge and skills from related course work.

MHA 212 Behavior Management 1 3 2
Advanced experiences in observing, recording, and designing projects to promote behavior change under the supervision of a qualified faculty member in practicum settings.
Prerequisite: Learning and Behavior, permission of the instructor.

MHA 215 Mental Health Seminar 3 0 3
An indepth review of current issues and trends within the field of mental health. The student is expected to demonstrate the knowledge and experience gained in previous study and training in group conferences and oral reports.

MHA 215P Practicum V 0 6 2
A continuation of Practicum V.

MHA 216 Advanced Helping Skills: Training & Practice 2 2 3
An intense experience for "professional helpers" in learning and mastering specific and effective interpersonal skills required by the "helper-helpee" model. These include the skills of attending, responding, personalizing, initiating and communicating. After this base is built, the trainees will practice the skills of problem definition, goal setting, value clarification, alternative selection and evaluation. Trainees will receive immediate and ongoing feedback from role-playing exercises via videotape peers' observation and trainer's comments. The size of the class will be limited to 20 to insure maximum learning.
Prerequisite: Group Process courses, permission by instructor.

MHA 231, 232, 233 Research in Mental Health 0 2 1
This course is designed for students who wish to specialize or expand their knowledge in certain areas of mental health. Under the supervision of mental health faculty members, the approach is structured to enable the student to investigate and study materials and data from primary and secondary sources which are relative to concepts in mental health and to prepare reports in the style appropriate to the discipline.

NURSING

NUR 101 Fundamentals of Nursing 6 6 0 9
Fundamentals of Nursing being the foundation of all subsequent courses introduces the student to nursing, to the concept of wellness, to the patient, and his environment. The course focuses on principles and techniques in the performance of skills by the nurse in meeting the needs common to all patients; stressing body mechanics, medical and surgical aspesis and other supplementary nursing functions. Nursing care plans, recording, and observational skills are introduced. The learning center and nursing laboratory are used for practice and development of skills, as well as the local hospital.

NUR 102 Medical Surgical Nursing 8 0 15 13
Introduces the student to the area of medical surgical nursing. Symptoms of illness classification of diseases, pre and post operative care, long term illness, and rehabilitation are included. Nursing the patient with circulatory and respiratory disorders, cancer and the dying patient are covered. Clinical time is spent in the medical-surgical departments of the hospital with additional learning experiences provided in the emergency room, operating room, and recovery room.

NUR 103 Medical Surgical Nursing II 9 0 15 14
Continatuion of study of disorders by body systems, covers causes, diagnosis, treatment and nursing care of these disorders. Communicable disease of the adult and disaster and emergency nursing are included. Clinical assignment will be on medical -surgical units of local hospitals, with additional learning experiences provided in the emergency room, operating room, and recovery room.

NUR 104 Maternal Child Health Nursing 8 0 15 13
The maternity component of Maternal Child Health Nursing focuses on modern aspects of maternity care and understanding of fundamental physiology of human reproduction. There is a thorough presentation of prenatal, labor and delivery, and postnatal care. Emphasis is on normal pregnancy and delivery. Complications affecting the normal process are presented. The pediatric component introduces the student to the etiology, treatment and nursing care of common and acute disorders and illnesses that effect the infant, child, and adolescent.

NUR 110 Pharmacology 3 0 0 3
Presents the student with facts concerning sources, effects, legalities and usage of therapeutic agents. Conversion between systems, prescriptions of medications, drug classifications, and nursing implications are covered. Prepares the student to administer medications and compute dosages.

NUR 131 Nursing Seminar 3 0 0 3
Comprehensive presentations of the practical nurse's ethical and legal responsibilities, professional organizations, and the history of nursing. Job opportunities are explored in depth. Continuing education after graduation is stressed, preparation for the licensing examination is included.

NUR 201 Advanced Maternity Nursing 3 0 8 6
A family-centered experience designed to prepare the student to incorporate into nursing practice to psychological concepts and family relationships that affect the quality of nursing care. It encompasses the normal and important abnormal aspects of the maternity cycle with special emphasis placed on the abnormal pregnancy and intensive care of the premature infant. Clinical experiences are planned to meet clinical objectives and to guide each student toward developing abilities in identifying nursing problems, implementing care, and evaluating results. Experiences are provided in the general hospital, doctors' offices, and in selected community agencies.

NUR 202 Psychiatric Nursing 6 0 15 11
A conceptual and developmental approach to the nurse's role in the care of patients both mentally and physically healthy and ill. Emphasis is placed on cognizance and utilization of self as a therapeutic tool, development of verbal and nonverbal communication skills. The course also emphasizes knowledge and identification of personality and behavior deviation experienced by the mentally ill patient, including etiology, treatment, prevention and rehabilitation of mental illness. Learning experiences are derived in a state mental hospital, and other community mental health related facilities.

NUR 203 Clinical Nursing I 2 0 8 5
Clinical Nursing I focuses on planned nursing care as a basis for nursing practice. Emphasis is placed on planned care that is individualized and concerned

with the total needs of the patient. Emphasis is also placed on increasing the nursing student's ability to plan, coordinate, and implement nursing care. Continuing emphasis is placed on the conceptual study of the biological, social, emotional, and rehabilitative components of illness as they relate to the ages and stages of development of the adult and child. Clinical learning experiences are designed to meet clinical objectives. Experiences are provided in the general hospital.

NUR 204 Clinical Nursing II 6 0 16 11
A conceptual study of the biological and the emotional components frequently occurring in illnesses of adults and children. Implementation of the management of patient care within the role of the Associate Degree Nurse is stressed. Opportunity is provided for using previous knowledge as well as that acquired concurrently in planning and implementing nursing care. Nutrition, pharmacology, history, and legal aspects of nursing are integrated in course content and clinical experience. Planned clinical learning experiences are selected on the basis of meeting clinical objectives in accordance with the students' needs. Experiences are provided in the general hospital, doctors' offices, and in selected community health agencies.

NUR 205 Clinical Nursing III 5 0 18 11
A continuation of a conceptual study of the biological and the emotional components frequently occurring in illnesses of adults and children. The course concentrates on increasing the nursing student's ability to use cognitive, affective, and psychomotor skills in meeting the needs of the adults and children expored to the stress of more complex medical-surgical problems. Special emphasis is placed upon the concepts of rehabilitative and adaptive processes. The student is given the opportunity to plan, direct and evaluate total patient care of individuals and groups. Continuing emphasis is also placed on providing an opportunity for application and reinforcement of previously acquired knowledge as well as that acquired concurrently in planning and implementating nursing care. Clinical learning experiences are selected on the basis of meeting clinical objectives and in accordance with the students' needs. Experiences are provided in the general hospital, doctors' offices, and in selected community agencies.

NUR 231 Nursing Seminar 3 0 0 3
Introduces some of the problems encountered by the nurses as they make the change from student to staff nurse. Reviews legal and ethical responsibilities and points out current trends in the nursing profession. Students will be expected to present problems for discussions, do special research on problems encountered and approaches for use of problem solving techniques. Stresses avenues for continued learning after graduation.

NUR 235 Special Problems in Nursing 0 4 0 2
Adapted to meet the special problems of individual students, this course is a program of guided activities in the library, learning center, or nursing laboratory to improve or enchance the student's nursing skills and knowledge.

NUR 236 Review of Nursing 3 0 0 3
A systematic approach to the review of fundamental nursing theory designed to facilitate the preparation of the graduate nurse for the written licensing examination. Seminar presentations are designed to emphasize safe practice in all areas of nursing. Students will be encouraged to participate in group

discussions, to share knowledge, information, and clinical experiences, thereby broadening their base of knowledge.

NUR 1100 Nurses' Assistant Theory and Clinical Practice **9 0 21 16**

A course designed to prepare qualified men and women to give effective bedside nursing care to selected patients. Students are taught the role of the nurses' assistant, concepts of health and illness, functional relationships within the nursing care facility, fundamentals of effective interpersonal relationships, basic nursing procedures related to the daily needs of patients, and selected special procedures. Clinical experiences in hospitals and nursing homes provide the student with the opportunity to apply the techniques learned in the classroom.

NUTRITION

NUT 101 Basic Nutrition **3 0 0 3**

The science of normal nutrition including the study of nutrients, how they are used by the body and sources and types of food necessary for the balanced diet in developmental and ethnic variations, physiological processes of digestion, absorption and metabolism are discussed. Introduction to special diets is covered.

NUT 102 Food for Children **2 2 3**

Designed to give students an understanding of nutritional needs and food habits of young children through applicaton of research findings. Practical experience in food service, management for feeding children is included as group and individual projects.

ORIENTATION

ORI 100 Freshman Seminar **1 0 1**

The course includes an orientation of the policies and philosophy of Pitt Technical Institute and stresses study techniques, decision-making, educational and career planning, and student services. It is designed to provide students with sufficient information to successfully complete a program of study.

ORI 101 Interpersonal Relations Seminar **1 0 1**

Designed to promote personal growth and develop a positive self-concept. Emphasizes verbal and non-verbal interaction in interpersonal communications. Social, cultural, and moral norms will be discussed as experienced.

PHYSICAL EDUCATION

PED	**104**	**Softball**	**2**	**0**	**1**
PED	**106**	**Basketball**	**2**	**0**	**1**
PED	**108**	**Volley Ball**	**2**	**0**	**1**

PHOTOGRAPHY

PHO 116 Photography 2 4 4
An introduction to the field of photography, photographic equipment, and materials. A study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communications. Assigned camera projects, darkroom procedures, and equipment.

PHO 217 Photography 2 4 4
Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating the various applications and creative possibilities of photography in advertising.
Prerequisite: PHO 116.

PHO 218 Special Problems in Photography 2 4 4
Special problems in photography in which students will be able to pursue approved special interest problems under the guidance and supervision of the instructor.

PHO 219 Special Problems in Photography 2 4 4
Special problems in photography in which students will be able to pursue approved special interest problems under the guidance and supervision of the instructor.

PHO 220 Special Problems in Photography 2 4 4
Special problems in photography in which students will be able to pursue approved special interest problems under the guidance and supervision of the instructor.

PHYSICS

PHY 101 Technical Physics 4 2 5
A fundamental course covering several basic principles of physics. Typical topics include systems of measurement, Newton's laws of motion, energy, equilibrium conditions and statics.
Co-Requisite: MAT 102.

PHY 012 Technical Physics 4 2 5
A continuation of PHY 101. Typical topics include heat and thermodynamics of heat engines, wave motion, and sound.
Prerequisites: MAT 102 and PHY 101.

PHY 103 Technical Physics 4 2 5
A continuation of PHY 102 with specific attention given to topics related to architecture. Acoustics, light and illumination and electricity are typical topics covered.
Prerequisites: MAT 103 and PHY 102.

PHY 104 Technical Physics 4 2 5
A continuation of PHY 102 with specific attention given to topics related to electronics. Rotary motion, simple harmonic motion, sound and circuits are typical topics covered. Electricity and magnetism are covered in detail.
Prerequisite: MAT 103 and PHY 102.

PHY 105 Environmental Physics 3 2 4
This course incorporates several topics relating to the study of physical phenomena. The special topics include: Greek alphabet, metric system, plane and solid geometry, conversion between various units, graphical portrayal and interpretation of data, use of calculator and algebraic techniques. Physical concepts studied are work, energy, power, behavior of gases and basic thermodynamics, as they relate to environmental conditions and principles of conservation.
Prerequisite: MAT 101.

PHY 106 Environmental Physics 3 2 4
A continuation of PHY 105. Emphasis on fluid mechanics, electricity, and electronics. Fluid mechanics is discussed in detail as related to environmental problems. The course includes general electrical principles and various applications of electrical and electronic devices.
Prerequisite: PHY 105.

PHY 107 Radiologic Physics 3 3 0 5
This course is designed to take the student from basic fundamentals through advanced physics covering such areas as structure of matter, electric current electrostatics, units of measurement, electro-dynamic, magnetism and electromagnestism, electric generators and motors, production and control of high voltage and rectification, x-ray circuits, x-ray tubes and rectifiers, and an introduction to therapy and nuclear medicine.
Prerequisite: MAT 114.

PHY 1101 Applied Science 3 2 0 4
An introduction to physical principles. Core topics include systems of measurement, properties of matter, solids and their characteristics, work, energy, power, and simple machines. Additional specialized topics for the various curricula are basic properties of liquid, gases, heating and refrigeration, and electricity.
Co-requisite: MAT 1101.

PHY 1110-A Appied Science 2 0 0 2
An introduction to systems of measurement and the properties of matter.
Co-requisite: MAT 1101.

PHY 1101-B Applied Science 1 0 2 2
Work, energy, power, simple machines, and specialized topics are the areas covered. PHY 1101-A and PHY 1101-B together are equivalent to PHY 1101.
Prerequisite: 1101-A.

PHY 1102 Applied Science 3 2 0 4
A continuation of PHY 1101. Typical topics include properties of matter, temperature and expansion, gas laws, change of state. Topics in electricity and magnetism, electrical instruments, transformers, generators, motors, AC and DC circuits.
Prerequisite: PHY 1101 and MAT 1101.

PHY 1103 Principles of Electricity 3 2 0 4
A study of the electron theory, Ohm's Law, series and parallel circuits, AC and DC circuits, magnetism, and batteries. The above concepts are applied to the automotible ignition system throughout the course.
Co-requisite: MAT 1101.

POWER MECHANICS

PME 1101 Internal Combustion Engine 3 0 12 7
Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance, servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing.

PME 1102 Electrical Systems 5 0 9 8
The electrical systems covered in this course are the ignition, cranking, charging, and lights and accessories systems. Through films, lectures, and demonstrations the student will be taught the theory and operation of these various systems. The laboratory will be used to demonstrate various test equipment and electrical checks. The student will spend much of his lab time learning to use various pieces of auto electrical test equipment.

PME 1104 Fuel Systems 3 0 6 5
This course is designed to give the student a solid background in the theory and operation of carburetors, fuel pumps, and the newer emission control devices. Through lectures, demonstrations, films, and transparencies, the student will gain a working knowledge of the automobile fuel system. Practical application of the knowledge will be used during the laboratory training periods when the student will disassemble various carburetors, perform test, and adjust to specifications. All test equipment will be demonstrated to and used by the student.

PME 1111 Foreign Car Engine Familiarization 0 0 3 1
A study of foreign car engines at the beginners level. An in-depth of engine operation. Names and function of engine parts will be required.

PME 1112 Foreign Car Fuel Systems 2 0 0 2
A thorough study of the fuel systems of foreign cars. The carburetor, fuel pump, and fuel accessories will be covered during this course.

PME 1113 Foreign Car Power Trains 0 0 3 1
This course deals in detailed analysis of the components of the automotive

power train: Emphasis on the identification of troubles which develop in these components and the correct servicing and repair procedures will be stressed.

PME 1222 Electrical Systems of the Foreign Cars 0 0 3 1
A study of the total electrical systems of foreign cars. The laboratory will be used to demonstrate various test equipment and to make electrical checks.

PME 1123 Brakes, Chassis, and Suspension 3 0 9 6
A complete study of various braking systems employed on automobiles and light weight trucks. Emphasis is placed on how they operate, proper adjustment, and repair. Also the servicing of power brakes is emphasized. Principles and functions of the components of automotive chassis. Practical job instruction in adjusting and repairing of suspension systems.

PME 1124 Power Trains 3 0 12 7
A comprehensive study of the principles of functions of the automotive power train. This course includes study of the clutch, conventional transmission, drive shaft, and the rear axle assembly. Identification of trouble, servicing problems, and repair of the power train system will be covered.

PME 1125 Auto Servicing 3 0 6 5
Emphasis is on the shop procedures necessary in trouble shooting the various component systems of the automobile. Trouble shooting of automotive systems provides a full range of experience in testing, adjusting, repairing, and replacing components. A close simulation to an actual automotive shop situation will be maintained.
Prerequisite: PME 1102, AUT 1123, and AHR 1101.

PME 1184 Practicum 0 0 39 13
The student will spend time in shop experiences under the supervision of a qualified shop foreman. Emphasis will be on the application of automotive servicing concepts and principles related to course content.

PME 1202 Electricity Electronics 3 0 9 6
Thorough study of theory and operation of individual automotive electrical units. Analysis and repair of all automotive electrical components. To supplement the engine electrical course for first year students and help them develop a knowledge of transistor circuits and their application to conventional electrical components and circuitry.

PME 1204 Emission Controls 2 0 6 4
This course will cover indepth the operation of the P.C.V. System, exhaust emission control systems, evaporative emission control systems, and scheduled maintenance operations. Also the use of all test equipment involved in diagnosing emission control problems will be used by the student.

PME 1214 Advanced Air Conditioning Repair 3 0 3 4
In depth study of the principles of refrigeration, including extensive practice in disassembly and the assembly of the component parts, diagnosis of malfunctioning, the proper methods of repair and handling of refrigerants in charging the various systems.
Prerequisite: AHR 1101 or work experience.

PME 1223 General Automotive Maintenance 1 0 6 3
General principles and procedures of auto maintenance will be discussed. Practical application will be performed in the shop.

PME 1224 Automatic Transmission 3 0 9 6
This course is designed to provide a measure of depth in the understanding of automatic transmissions. Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly, and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing and trouble shooting procedures and repair of various types of automatic transmission.
Prerequisite: PME 1124.

PME 1225 Automotive Engine Trouble Shooting 5 0 12 9
In this course, the general principles of engine "trouble-shooting" including the electrical and fuel systems are gained. In addition, a study is made of the engine design and construction along with the four-stroke cycle and two-stroke cycle principles of engine operation.

PME 1226 Advanced Auto Service, and Foreign Cars 2 0 3 3
Emphasis on troubleshooting and repairing the various component systems of the automobile, providing an extra range (beyond that of PME 1125) of testing, adjusting, repairing, and replacing experiences.

PME 1227 Power Accessories 2 0 6 4
This course is designed to acquaint the student with the operation, service, and repair of power operated seats, windows, tops, windshield wipers, and radio antennas. It should insure the development of the students ability to understand and trace out the circuits of the electrical accessories and to enhance his skill in diagnosing trouble and repairing damaged circuits. He will apply his knowledge in drawing and reading schematic diagrams of electrical circuits.

PME 1298A Special Problems in Auto Mechanics 0 0 3 1
A supplement to any of the auto mechanics courses, this course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialzed areas, or develop special interest projects related to auto mechanics.

PME 1298B Special Problems in Auto Mechanics 3 0 3 4
A supplement to any of the auto mechanics courses, this course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

PME 1298C Special Problems in Auto Mechanics 0 0 3 1
A supplement to any of the auto mechanics courses, this course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

PME 1299A Special Problems in Auto Mechanics 2 0 3 3
A supplement to any of the auto mechanics courses, this course is designed to

provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

PME 1299B Special Problems in Auto Mechanics 2 0 0 2
A supplement to any of the auto mechanics courses, this course is designed to provide students with the opportunity to acquire additional practice in skills required in curriculum courses, gain skills in selected specialized areas, or develop special interest projects related to auto mechanics.

POLITICAL SCIENCE

POL 102 National Government 3 0 3
English and colonial background, the Articles of Confederation and the framing of the Federal Constitution. The nature of the federal union, states rights, federal powers, political parties. The general organization and functioning of the national government.

POL 103 State and Local Government 3 0 3
A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, and revenues and appropriations. Special attention will be given to North Carolina.

POLICE SCIENCE

PSC 102 Criminology 3 0 3
A survey of the historical and contemporary theories associated with the underlying causes of criminal behavior.

PSC 103 Penology 3 0 3
A study of the historical development of the U.S. prison system and a survey of contemporary methods employed by the NC Youth Development Commission, Parole Board, Probation Commission and the Corrections Department.

PSC 110 Juvenile Delinquency 5 0 5
A study of the factors contributing to juvenile delinquency and an evaluation of the methods employed in delinquency control. Special attention will be given to the role of juvenile agencies and to the legal procedures utilized in dealing with offenders.

PSC 201 Patrol Procedures 4 2 5
An overview of techniques and procedures employed in routine patrol and traffic control.

PSC 202 Police Community Relations 2 0 2
A study of the need for good police-community relations and the methodology employed in achieving these objectives.

PSC 213 Identification Techniques 3 2 4
A survey of contemporary identification techniques with primary emphasis on fingerprinting. The student will develop skills in taking and classifying rolled impressions and in developing latent lifts through lab practice.

PSC 240 Firearms and Defensive Tactics 2 2 3
A course designed to develop respect for the needs, use, and legal liabilities associated with all firearms. Range practice will be provided with emphasis on the service revolver. Instruction will also be given in the use of non-lethal weapons and in defensive tactics as used in handling arrested persons.
Prerequisite: Admission to program and permission of instructor-coordinator.

PSYCHOLOGY

PSY 101 Introduction to Psychology 5 0 5
In this course of study the attempt is made to offer an overview of the general characteristics of human behavior, including motivation, learning, perception, emotions, and intelligence, with emphasis on the application of scientific methods to psychological investigation and on the biological basis of behavior and experience. Special emphasis is placed on behavior disorders and mental retardation in an attempt to help the student apply the content of this course to job responsibilities.

PSY 102 General Psychology 3 0 3
A study of the various fields of psychology, the developmental process, motivation, emotion, frustration and adjustment, mental health, attention and perception, and problems of group living. Attention is given to applications of these topics to problems of study, self understanding, and adjustment to the demands of society.

PSY 102-H General Psychology (Health Related Professions) 3 0 3
A study of the various fields of psychology designed for students preparing for careers in health care. Considers development, learning, perception, motivation, emotion, personality, and adjustment. Special emphasis is placed on emotional and mental disorders, including principles of recognizing and identifying personality and behavior deviations.

PSY 103 Adolescent Psychology 3 0 3
A study of the nature and source of the problems of adolescents in eastern culture, physical, emotional, social, intellectual, and personality development of adolescents.
Prerequisite: PSY 102.

PSY 104 Human Relations 3 0 3

A course designed to encourage skill development in personal and interpersonal relationships. Emphasis is on the development of skills in self-analysis, listening, and communication that will help the health care worker meet the needs of the patient on a personalized, empathetic basis.

PSY 112 Personality Development 3 0 3

Designed to help the student recognize the importance of the physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on grooming and methods of personality improvement.

PSY 115 Child Growth and Development: Prenatal-Early Childhood 3 0 3

A study of the developmental sequence of the prenatal, infant, and early childhood periods. Emphasis is given to the factors influencing development and the importance of experiences in establishing patterns of behavior, attitudes, and interpersonal skills.

PSY 116 Child Growth and Development: Middle Childhood and Adolescence 3 0 3

A detailed study of the developmental sequences during middle childhood and adolescence, including the environmental and social factors which influence developmental rates, the formulation of behavior patterns, and establishment of value systems and interest.

PSY 120 Human Growth and Development 3 0 3

In this course, the student will gain knowledge about the basic principles of physiological and psychological growth stages of the child from conception through adolescence. The basic principles will enable the student to understand the ages and stages a child progresses through and to comprehend not only that each child is an individual but that the stages have certain commonalities. When working with children and parents, the student will be able to convey to the parent that the child's behavior is "typical" for that age range and that the behavior is not caused by something the parent is or is not doing. In addition, the basic principles will enhance the student's ability to detect abnormal development patterns when observing a child and to convey this information to the parents and professionals involved in the healthy development of the child.

PSY 206 Applied Psychology 3 0 3

A study of the principles of psychology that will be of assistance in the understanding of interpersonal relations on the job. Motivation, feelings, and emotions are considered with particular reference to on-the-job problems. Other topics investigated are employee selection, supervision, job satisfaction, and industrial conflict. Attention is also given to personal and group dynamics so that the student may learn to apply the principles of mental hygiene to his adjustment problems as a worker and a member of the general community. Emphasis will be placed on helping the student systematically apply psychological principles learned in the classroom to problems causing dissatisfaction with self, children, spouse, and other.

PSY 207 Applied Police Psychology 3 0 3

A study which builds upon the principles of psychology taught in PSY 102. It is designed to assist law enforcement officers in a better understanding of

relationships on the job, at home, and in the community as members of the law enforcement team.
Prerequisite: PSY 102.

PSY 211 Behavior Disorders I: Theory 5 0 5
A study of general patterns of abnormal behavior with emphasis on biological and environmental causal factors and human coping mechanisms.
Prerequisite: PSY 101.

PSY 212 Behavior Disorders II: Modification 3 4 5
A study of selected patterns of deviant behavior with emphasis on the understanding, treatment, and prevention of these personality disorders. Attempts are made to relate personality disorders to role definition and interaction of team members in providing comprehensive mental health services.
Prerequisite: PSY 211.

PSY 217 Introduction to Psychology 3 0 3
This course, followed by Psychology 218, is planned to give the student a basic knowledge of the general field of psychology. The development of human personality, emotions, intelligence, sensory perception, and behavior are discussed.

PSY 218 Introduction to Psychology II 3 0 3
A continuation of PSY 217, this course studies the human learning process, behavior under stress and communication between individuals. Study then moves to the psychological implications of inter-personal relationships, especially between a health worker and the patient. The emotional reactions to disease, physical impairment, and/or handicap by persons with varying basic personality characteristics is explored at some length. The personal adjustment of the health team worker to the disabled or severely injured patient is also considered.

PSY 219 Personality Theories 3 0 3
An analysis of summaries of some of the major contemporary theories of personality involving the development of personality and application of concepts on a more or less self-determining system of beliefs, values and behavior tendencies.
Prerequisite: PSY 101

PSY 220 Learning and Behavior 3 4 5
Introduction to the basic learning principles and concepts required to explain the acquisition and maintenance of behavior. Emphasis will be placed on positive and negative reinforcement, punishment, extinction, shaping, fading, chaining, recording and charting behavior. A self-modification will be conducted by each student.
Prerequisite: PSY 101.

PSY 222 Exceptionality 5 0 5
General concepts of intellectual, sensorial, motor, speech, and social variability among individuals.

PSY 223 The Addictive Personality 5 0 5
A survey of environmental and physical factors that differentiate the addict.

Stress is given to the theories of cause and treatment.
Prerequisite: PSY 101.

PSY 225 Tests and Measurements 3 0 3
A study of the principles of psychological testing, general intelligence tests, differential testing of abilities, and measurement of personality traits.
Prerequisite: PSY 101.

PSY 228 Abnormal Psychology 3 0 3
A course designed to provide instruction in mental hygiene, in the underlying causes of drug addiction and alcoholism, and in recognizing and dealing with abnormal individuals.

PSY 229 Abnormal Psychology 5 0 5
A study of the symptoms, contributing factors, treatment and out-comes of the mentally ill and mentally defective as well as maladjusted, antisocial persons. Classifications and nomenclature of psychoneurosis, psychoses, and other illnesses are discussed.
Prerequisite: PSY 101.

PSY 230 Psychology and Physiology of Aging 3 0 3
Survey course intended to develop an awareness in student of the inevitability of aging as a part of the normal life cycle. The course will survey the physical, psychological, and social changes occuring in late middle age and old age with emphasis on the care and treatment of the aged in our society.
Prerequisite: PSY 101.

PSY 1101 Human Relations 3 0 0 3
A study of basic principles of human behavior. The problems of the individual are studied in relation to society, group membership, and relationships within the work situation.

RADIOLOGIC TECHNOLOGY

RDT 101 Radiologic Technology I 4 2 0 5
The student is given an orientation to the field of radiologic technology. He is taught darkroom chemistry and film processing, the basic principles of radiographic exposure, elementary patient care procedures, introduction to medical terminology, and he is introduced to radiographic positioning as applied to those systems covered under BIO 107.

RDT 102 Radiologic Technology II 4 3 0 5
The student is taught the radiographic principles and basic radiographic positioning necessary to perform diagnostic studies of the systems studied under BIO 108. Further patient care procedures and medical terminology are included.
Prerequisite: RDT 101 and BIO 107.

RDT 103 Radiologic Technology III 4 2 0 5
The student will continue to learn the techniques for basic views of the system taught under BIO 108, such as soft tissue radiography and fluoroscopy. He will

be taught how to prepare the patient and the contrast media for these studies.
Prerequisite: RDT 102 and BIO 108.

RDT 111 Clinical Education 2 0 6 4
Education in a clinical setting including processing of radiographs, practice in ethical and attitudinal situations during patient contact cover patient care and basic positioning for studies of upper and lower extremities, shoulder and pelvic girdles, introduction to thoracic and abdominal viscera, and preparation of the patient for studies, and performance of examinations of the urinary systems. The student will also apply some of the simpler principles of radiographic exposure. There will be regular sessions of film critique.

RDT 112 Clinical Education 1 0 15 6
Education in a clinical setting. The student will continue to improve his basic skills in darkroom technique and patient positioning for routine studies taught under BIO 107 and RDT 101. He will practice the techniques for roentgenographic studies of the systems studied under BIO 108. There will be regular sessions of film critiques.
Prerequisite: RDT 111.

RDT 113 Clinical Education 1 0 24 9
Education in a clinical setting with emphasis on the preparation and use of contrast media, preparation of the patient for such studies and the performance of examination of the digestive tract, biliary tract, and urinary tract using contrast media. The student will gain experience in fluoroscopic procedure and will also make radiographs of the abdominal and thoracic viscera without the use of contrast media. Soft tissue radiography (exclusive of mammography) and location of foreign bodies will be touched upon. There will be regular film critique sessions.
Prerequisite: RDT 112.

RDT 114 Clinical Education 1 0 33 12
The student will spend the entire quarter gaining clinical education and developing skill in the techniques of those procedures covered during the first three quarters. There will be regular film critique sessions.
Prerequisite: RDT 103 and RDT 113.

RDT 201 Topographic Anatomy 2 0 0 2
A review of anatomy from the stand point of topographic anatomy and the relationship of organs to each other. Stress is upon the location of each organ using surface landmarks and the relation of the organ to other organs within the same anatomic region.
Prerequisite: BIO 107, 108.

RDT 204 Radiologic Technology IV 4 3 0 5
This course is a continuation of the radiologic technology series. The content covered in this quarter concerns radiation protection: equipment maintenance, more advanced work in the radiography of the skeleton, and the art of pediatric radiology. Special views and techniques for diagnostic radiology of the skeleton will be emphasized.
Prerequisite: RDT 103.

RDT 205 Radiologic Technology V 4 3 0 5
The study this quarter is confined to special radiographic procedures. Areas to be covered include photo fluorography; bronchography, mammography,

sialography, pelvimetry, and vascular procedures. Emphasis will be directed toward all requirements necessary for performing these procedures, including equipment and methodology utilized.
Prerequisite: RDT 204.

RDT 206 Radiologic Technology VI 4 0 0 4
A study of radioactive isotopes which assist the radiologist in the diagnosis and/or treatent of illness or injury.
Prerequisite; RDT 205.

RDT 208 Radiologic Technology VII 6 0 0 6
Course will be devoted to a complete review of all subject matter covered during program. Emphasis will be on discussion of knowledge obtained during rotation through minor affiliates.
Prerequisite: RDT 203, RDT 206.

RDT 215 Clinical Education 1 0 39 14
Education in clinical area will cover radiography of the skeleton, the thoracic and abdominal viscera, and examination of the abdominal viscera using contrast media and fluoroscopy. Emphasis will be placed on the student's ability to do pediatric radiography and views for radiography of the skeleton.
Prerequisite: RDT 114.

RDT 216 Clinical Education 1 0 24 9
Emphasis this quarter will be placed on the student's ability to assist and perform procedures studied in RDT 205. The student will be required to show proficiency in all of these areas.
Prerequisite: RDT 215.

RDT 217 Clinical Education 1 0 36 13
Students will rotate for a two-week period through each minor affiliate, the Nuclear Medicine Department and the major affiliate, and the special procedures area at the major affiliate to gain knowledge in specialized procedures, nuclear medicine, radiation therapy, and advance imaging modalities.
Prerequisite: RDT 216.

RDT 218 Clinical Education 1 0 33 12
Students will complete rotation through minor affiliates and specialized areas in major affiliates.
Prerequisite: RDT 217.

RDT 219 Review of Radiologic Technology 3 0 0 3
A systematic approach to the review of fundamental radiologic technology theory designed to facilitate the preparation of the graduate radiologic technologist for the written examination. Students will be encouraged to participate in group discussion, to share knowledge, information, and clinical experiences, thereby broadening their base of knowledge.

REAL ESTATE

RLS 101 Fundamentals of Real Estate 1 2 2
A survey course designed to provide both the beginner and the practitioner with a basic knowledge of real estate. It includes the basic aspects of real estate ownership, contracts, financing, closing, licensing, mathematics, brokerage, land use, property management and law of agency. Successful completion and meeting attendance requirements of this course qualifies the student to take the North Carolina Real Estate Broker's Examination.
Prerequisite: None.

SOCIOLOGY

SOC 101 Introduction to Sociology 5 0 5
A course designed specifically for the student pursuing the degree of Mental Health Associate. An introductory course to the principles of sociology. An attempt to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of man's behavior in relation to other men, the general laws affecting the organization of such relationships, and the effects of social life on human personality and behavior.

SOC 102 Principles of Sociology 3 0 3
A study of the principles of sociology, attempting to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of man's behavior in relations to others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior.

SOC 102-H Principles of Sociology (Health Related Professions) 3 0 3
A study of principles of sociology designed to provide a sociologic perspective for students preparing for careers in health care. Considers culture, collective behavior, community life, demography, social institutions, and social change and attempts to help students acquire insights into the nature of health as it relates to society and into society as it relates to health.

SOC 103 Social Problems 3 0 3
A study of nature and extent of major social problems of contemporary society, with emphasis given to such problems as family disorganization, crime and delinquency, minority groups, industrialization and urbanization.
Prerequisite: SOC 101.

SOC 202 Environmental Sociology 3 0 3
Environmental impact statements required prior to construction of community, commercial and industrial complexes incorporates political and economical considerations along with technical aspects. This course is designed to train graduates to deal effectively with environmental issues involving society's collective judgement and a great deal of its resources.

SOC 221 The Family 3 0 3
A study of the origin and development of the family as a social institution with

emphasis on courtship, marriage, parenthood, family relationships and problems of the contemporary American family.

SOCIAL SCIENCE

SSC 101 Introduction to Social Sciences 3 0 3
This integrated course in the social sciences, drawing from the fields of sociology, psychology, economics, and political science, introduces the student to the methods of social science and to the basic concepts used by social scientists to explain the functioning of the human world.

SSC 201 Social Science 3 0 3
An integrated course in the social sciences, drawing from the fields of anthropology, psychology, history, and sociology.

SSC 202 Social Science 3 0 3
A further study of social sciences with emphasis on economics, political science, and social problems as they relate to the individual.
Prerequisite: SSC 201.

SSC 205 American Institutions 3 0 3
A study of the effect of American social, economic, and political institutions upon the individual as a citizen and as a worker. The course dwells upon current local, national, and global problems viewed in the light of our political and economic heritage.

SURGICAL

SUR 1101 Clinical Practice I 0 0 12 4
Beginning experience in the operating room under the supervision of the instructor. Applying theory and clinical together; experience regarding duties of circulating technician; and transportation of the patient to surgery.

SUR 1102 Introduction and Orientation 5 3 0 6
To present the purpose of the program, its content and its function. To recognize the importance of operating room organization and to correlate interdepartmental relations and interrelations with other departments in the hospital. Includes medical terminology and symbols; transportation, positioning, and care of the patient in surgery; and ethical and legal responsibilities. Provides an introduction to other coordinated activities as vital signs, respiratory maintenance, drainage tubes and catheters, and urethral catheterization. Prepares the student for experience in emergency, recovery, and delivery rooms.

SUR 1103 Care and Safety of the Patient During Surgery 2 3 0 3
To demonstrate the awareness of the total needs of the patient; physical, social, psychological, and spiritual; significance of preoperative preparations; presentations of the various modes of transporation of the patient to the

operating room and the appropriate use of each Mode: and presentation of the responsibilities involved in relation to the patient receiving anesthesia. Identification of the anatomical principles involved in proper surgical positioning, and identification and manipulation of the operating table.

SUR 1104 Introduction to Microbiology 3 0 0 3
Presentation of the basic principles of microbiology to aid the student in understanding the relationship of microorganisms with the maintenance of health and the cause, control, and prevention of disease.

SUR 1111 Clinical Practice II 1 0 24 9
Continued experience in the operating room under the supervision of the instructor. Applying theory and clinical together; experience regarding duties of circulating technician and limited scrubbing experience.

SUR 1112 Coordinated Hospital Activities 1 0 0 1
Introduction to vital signs, respiratory maintenance, care of the skin; drainage tubes and catheters; intravenous therapy; tracheostomy care; fundamentals of bedmaking; postoperative care; urethral catheterization; and skin and skeletal traction. Emergency Room care and delivery of the newborn infant.

SUR 1114 Principles of Operating Room Techniques 1 0 6 3
Introduction to the method of preoperative surgical hand scrub, historical development of the surgical scrub, gowning, and gloving; aspectic technique and the development of a "sterile conscience", types of drapes, proper handling of drapes, and the importance of proper draping. Various types, sizes, and uses of sutures; different types, parts, and uses of needles used for suturing tissue. Types and uses of drains; types of basic instruments, the classification and uses and manufacture and care of instruments. The study of specific responsibility of the circulating and scrubbed personnel in routine and special procedures.

SUR 1115 Pharmacology for Operating Room 2 0 0 2
To enable the student to become familiar with the drugs and agents used in surgery and during surgical procedures. Also deals with the basic mathematics and measurements needed to handle drugs in a surgical situation.

SUR 1116 Surgical Procedures I 9 0 0 9
Introduction to the various types of incisions used in performing surgery. Relationship between supplies and equipment in the preparation for surgery. Regional anatomy of the operative site. Introduction to surgical procedures including instruments, general surgery, general abdominal, gynecology, obstetrical, thoracia, genito urinary, and orthopedic.

SUR 1121 Clinical Practice III 0 0 30 10
Continued experience in duties of circulating and scrubbed technician. Also experience in set-up and work room, delivery room, recovery room, or emergency room.

SUR 1122 Clinical Practice IV 0 0 36 12
Continuation of SUR 1121 with advanced experiences in the dutues of the circulating and scrubbed technician.

SUR 1127 Surgical Procedure II 5 0 0 5
Relationship between supplies and equipment in the preparation for surgery. Regional anatomy of the operative site. Introduction to surgical procedures including eye, ear, nose, throat, plastic, neurosurgery, and cardiovascular. Pediatric and geriatric surgery; diagnostic procedures; radiation therapy; plaster casts; treatment of burns; and special instruments and equipment.

SUR 1128 Surgical Procedures III 4 0 0 4
A continuation of SUR 1127 with emphasis on advanced surgical procedures. Also includes case studies and seminars.

SUR 1130 Review of Operating Room Technology 3 0 0 3
A complete review of all subject matter covered in the Operating Room Technology program in preparation for taking the national certifying exam.

WELDING

WLD 120 Welding, Oxyacetylene 2 3 3
Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Welding procedures such as practice in pudding and carrying the puddle, running flat beads, butt welding in the flat, vertical, and overhead position, brazing, hard and soft soldering. Safety procedures are stressed through the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

WLD 121 Arc Welding 2 6 4
The operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment.

WLD 122 Commercial and Industrial Practice 2 3 3
Designed to build skills through practices in simulated and actual industrial processes and techniques. Sketching and layout on paper of the size and shape description, listing the procedure steps necessary to build the product and estimating time and material and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection.
Prerequisites: WLD 120 and WLD 121.

WLD 1102 Basic Gas Welding 0 0 3 1
Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame cutting methods applicable to mechanical repair work.

WLD 1105 Auto Body Welding 0 0 3 1
Welding practices on material applicable to the installation of body panels and repairs to doors, fenders, hoods, and deck lids. Student runs beads, does butt and fillet welding. Performs tests to detect strength and weaknesses of welded joints. Safety procedures are emphasized throughout the course.

WLD 1112 Mechanical Testing and Inspection 1 0 3 2
The standard methods for mechanical testing of welds. The student is introduced to the various types of tests and testing procedures and performs the details of the test which will give adequate information as to the quality of the weld. Types of tests to be covered are: bend, destructive, free-bend, guided-bend, nick-tear, notched-bend, tee-bend, nondestructive, V-notch, Charpy impact, ect.
Prerequisites: WLD 1141 and WLD 1142 or WLD 1120 and WLD 1121.

WLD 1120 Oxyacetylene Welding and Cutting 3 0 12 7
Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical, and overhead position, brazing, hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.
Prerequisite: None.

WLD 1121 Arc Welding 3 0 12 7
The operation of AC transformers and DC motor generator arc welding sets. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weaknesses in welding. Safety procedures are emphasized throughout the course in the use of tools and equipment.
Prerequisite: None.

WLD 1122 Commercial and Industrial Practices 3 0 9 6
Designed to build skills through practices in simulated industrial processes and techniques: sketching and laying out on paper the size and shape, description, listing the procedure steps necessary to build the product, and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding and nondestructive tests and inspection.
Prerequisites: WLD 1141 and WLD 1142 or WLD 1120 and WLD 1121.

WLD 1123 Inert Gas Welding 1 0 3 2
Introduction and practical operations in the use of inert-gas-shield arc welding. A study will be made of the equipment, operation, safety and practice in the various positions. A thorough study of such topics as: principles of operation, shielding gases, filler rods, process variations and applications, manual and automatic welding.
Prerequisites: WLD 1141 and WLD 1142 or WLD 1120 and WLD 1121.

WLD 1124 Pipe Welding **3 0 12 7**
Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the ASME code.
Prerequisite: WLD 1121 or WLD 1142.

WLD 1125 Certification Practices **3 0 6 5**
This course involves practices in welding the various materials to meet certification standards. The student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skill in producing quality welds.
Prerequisites: WLD 1123 and WLD 1124; WLD 1141 and 1142 or WLD 1120 and WLD 1121.

WLD 1129 Basic Gas Welding **2 0 3 3**
The various processes used for joining materials by welding are discussed. Lecture, demonstrations, and practice cover the oxyacetylene and arc welding processes, filler metals used, gases, and currents weldability of metals. Instruction is given in the set up and safe operation of oxyacetylene and arc welding apparatus. Students prepare joints both by hand and by machine cutting with the oxyacetylene torch.

WLD 1141 Beginning Welding **5 0 15 10**
Introduction to the history of oxyacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment, assembly of unit. The operation of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads, butt welding in the flat, vertical and overhead positions, and the cutting of straight lines with the torch. Safety procedures are stressed throughout the program of instruction.

WLD 1142 Intermediate Welding **5 0 15 10**
A review of basic oxyacetylene cutting and welding, preparation of metals, types of joints, welding procedures and testing of the welds. The operation of A.C. transformers and D.C. motor generator arc welding machines. Studies are made of welding heats, polarities, and electrodes for use in joining various metals alloys by the arc welding process. After the student is capable of running beads, butt and fillet welds in all positions are made and tested in order that the student may detect his weakness in welding. Safety procedures are emphasized throughout the course.

CONTINUING EDUCATION

CONTINUING EDUCATION

GENERAL INFORMATION

The Division of Continuing Education at Pitt Technical Institute is committed to serve adults from the general community, business, and industry. Various programs are offered for the individual to meet particular needs and interests. Opportunities exist to upgrade occupational skills, to acquire new skills, to complete high school, and to pursue activities for personal enrichment.

LOCATION

Classes are held on campus and in off-campus facilities such as public schools, community buildings, churches, civic centers, industrial plants, and fire stations.

ELIGIBILITY

Each course is open to adults 18 years of age or older and not enrolled in a secondary school.

SCHEDULE OF COURSES

A schedule of Continuing Education classes is published quarterly and distributed throughout Greenville and surrounding areas. Classes are organized upon demonstration of sufficient interest and availability of the required facilities, and instructors. Newspaper, radio, and television are utilized to announce course offerings. Classes are usually held from 7:00 p.m. to 10:00 p.m.; however, classes can be scheduled for mornings or afternoons.

COURSE CREDIT

Generally courses offered in Continuing Education are non-credit; however, credit will be given in the Adult High School Diploma Program. CEU's (Continuing Education Units) are also awarded for certain courses. (Ten contact hours of class earn a CEU) Written acknowledgement of course completion or participation may be provided to individuals upon request.

REGISTRATION AND ATTENDANCE

Registration for classes is normally completed on a first-come first-serve basis. A minimum of fourteen (14) persons is usually needed to begin classes. If regular attendance falls below six people, the class may be discontinued.

FEES

A registration fee of $5.00 is required for all non-credit courses (except Adult Driver Training which is $19.00) and must be paid at the first class meeting. Accident Insurance is available to all students. Students in laboratory courses requiring the use of equipment and machinery must either purchase insurance or sign a waiver release form.

COURSE DESCRIPTIONS

Course descriptions are available upon request by calling or visiting the Division of Continuing Education. Individuals who desire counseling or other special assistance may contact either the instructor or the directors in the Continuing Education Division.

BOOKS AND SUPPLIES

Most courses do not require textbooks. When a text is required, students will be notified at the first class meeting. Students are generally responsible for their class supplies.

LIBRARY AND AUDIOVISUAL SERVICES

The Library Resource Center (LRC) provides library and audiovisual materials and services for all students, faculty, and staff of Pitt Technical Institute, and to residents of Pitt County. Further information concerning these services is included in this publication under the heading **LIBRARY RESOURCE CENTER.**

VETERANS BENEFITS

Information regarding veterans benefits may be found in the appropriate section of this publication. For additional information, Contact the Veterans affairs officer: Telephone 756-3130, extension 260. After 5:00 p.m., visit room 113 in the Humber Building or telephone 756-3130, extension 238.

GENERAL ADULT EDUCATION

The General Education Program consists of non-credit courses which enable the adult to develop a skill or an art in his area of interest.

Courses are offered in the following areas: creative arts, family life, health and safety, homemaking, language arts, and parent education.

ADULT BASIC EDUCATION

Adult Basic Education is designed to improve the reading and math skills of persons who seek self-improvement through organized classes. The goal of the program is to help the student function more effectively in his environment. Classes may be established throughout the Pitt County area and may be co-sponsored with churches, schools, or community organizations. Groups interested in developing a class (at least ten (10) people), may contact the Adult Basic Education Director at Pitt Technical Institute. There are no charges for the classes or materials.

ADULT HIGH SCHOOL EQUIVALENCY

The Adult High School Equivalency program is designed to prepare the adult to take the state high school equivalency test. (General Educational Development Test, (GED).) Adults may enroll in morning, afternoon, or evening classes at specified locations in the Greenville — Pitt County area. Program content covers English expression, literature, mathematics, social

studies, and natural science. There is a $5.00 tuition fee and students may be required to purchase instructional materials.

The GED Test is given at the Pitt Technical Institute Learning Center, without cost to the adult. The Learning Center is open Monday through Thursday from 8:00 a.m. to 5:00 p.m. and 6:00 p.m. to 10:00 p.m. On Fridays, the Learning Center is open from 8:00 a.m. to 5:00 p.m. Adults may take the GED Test at all times when the Learning Center is open. Telephone 756-3130, extension 231 or come by the Learning Center in room 2 of the Administration Building.

GENERAL INTEREST OFFERINGS

Examples of general interest courses are as follows:

Art (basic), sketching and drawing
Arts and Crafts (variety)
Auto Care and Tune-up
Baking and Decorations
Copper Tooling
Creative Writing
Crochet
Decoupage
Investments and Securities
Knitting
Macrame
Seasonal Decorations
Sign Language

THE LEARNING CENTER

The Learning Center at Pitt Technical Institute is designed to provide opportunities for individual study to both curriculum students and adults in the community. Study areas include the following: preparation for taking the high school equivalency test; preparation for entrance into a curriculum program; preparation for college entrance; upgrading in specific areas; study of subjects for personal satisfaction.

Pitt Technical Institute is approved by the North Carolina Department of Public Instruction and the American Council on Education as a testing center for the General Educational Development Test Battery (GED). This testing program, through which adults may earn a high school equivalency diploma, is administered in the Learning Center. Adults may take the GED at all times when the Learning Center is open. Telephone 756-3130, extension 231, or come by the Learning Center in room 2 of the Administration Building.

Hours of Operation:

8:00 a.m. — 5:00 p.m.	Monday — Thursday
6:00 p.m. — 10:00 p.m.	Monday — Thursday
8:00 a.m. — 5:00 p.m.	Friday

A coordinator is available at all times to evaluate, advise and aid the students in their progress.

Anyone eighteen (18) years of age or older who is not enrolled in a secondary school may enroll in the Learning Center at no charge.

FARMVILLE ADULT EDUCATION CENTER

The Farmville Adult Education Center, a branch of Pitt Technical Institute, is located at 112 E. Wilson Street in Farmville, N.C., and offers adult training in a variety of general interest areas. Examples of courses available at this

center are as follows: Ceramics, sewing, cake decorating, crewel embroidery, knitting, crochet, and driver education.

For more information about the course offerings at the Farmville Adult Education Center, call 756-3130 ext. 253.

OCCUPATIONAL EXTENSION

Occupational courses are offered for employed persons needing to upgrade their skills or for persons seeking employment at the skilled technical and vocational level.

GENERAL OCCUPATIONAL COURSES

Examples of general occupational courses are as follows:

Activity Coordinator Training Program
Advanced Arc Welding
Aviation Ground School
Basic Arc Welding
Basic Blueprint Reading
Basic Electricity
Basic First Aid
Brick Masonry
Estimating for the Building Trades
Fundamentals of Real Estate
General Insurance Series (3 courses)
Handyman Bricklaying
Home Plumbing Repairs
Household Appliance Repair
Insurance Adjustor Series (6 courses)
Motorcycle Repair
Ornamental Horticulture
Outboard Motor Repair
Pesticides
Real Estate Appraisal
Secretarial Refresher
Small Engine Repairs
Speedwriting
Tobacco Auctioneering
Tobacco Ticket Marketing
TV Service and Repair
Woodworking and Cabinet Making

SPECIALTY OCCUPATIONAL PROGRAMS

FIRE SERVICE TRAINING

Fire Service Training is designed to provide firemen the opportunity to gain technical information and skill in modern fire fighting through a variety of learning experiences and practical problems. Usually these courses are conducted in the local fire departments for the volunteer firemen, training as an organized group utilizing equipment and methods they would ordinarily use in preventing and suppressing fire.

Some of the subject areas for volunteer firemen are as follows: arson detection, compressed gas emergencies, fire apparatus practices, hazardous materials, introduction to fire fighting, ladder practices, hose practices, rescue practices, protective breathing equipment, and fire fighting procedures.

Courses such as Home Safety, Fire Prevention and Industrial Fire Brigade Training are available to the public and industry as well as fire service personnel.

HOSPITALITY TRAINING

This program is provided to train hotel - motel managers, food service personnel, waiters, waitresses, cooks and maids or any other individual or group in the hospitality field.

Hospitality education has three objectives: (1) to develop, within individuals, skills that will qualify them for better employment opportunities in the hospitality field; (2) to provide employers with well-trained personnel to operate their business; and (3) to provide better hospitality. Some of the subject areas are as follows: Front Office Procedures, Human Relations, Communication, Basic Nutrition and Menu Planning, Overview of School Food Service, Use and Care of Equipment, Quantity Cooking, and Quantity Food Preparation.

LAW ENFORCEMENT TRAINING

Several Short courses and seminars are conducted to upgrade and train law enforcement officers. Some courses are as follows: Introduction to Police Science, Courts and Law, Laws of Arrest, Search and Seizure, and General Criminal Investigation.

The school also offers a two-year associate degree curriculum in Police Science and Criminology.

MANAGEMENT DEVELOPMENT TRAINING

Management Development Training courses are designed for potential and active supervisors who want to prepare for more effective leadership and advancement. Courses are offered both on and off campus. The courses are flexible in terms of content and meeting times. Every effort is made to fit course content to particular individual, industrial, or business needs.

Some of the courses are:

Principles of Supervision
Economics and Management
Economics in Business and Industry
Creative Thinking
Supervisory Techniques
Effective Communications
Employee Evaluation and Interviewing
Conference Leadership Training
Effective Writing
Motivation Techniques
Art of Motivating People

PROFESSIONAL IN – SERVICE PROGRAM

Teacher Certificate Renewal - Local superintendents responsible for providing in-service upgrading and training for teachers coordinate with the Division of Continuing Education to develop special courses designed to meet the need of the local school unit. This division assists in the development and

presentation of approved courses by providing such personnel, facilities and services as are needed in coordination with the local school unit.

Other Professional In—Service - Various institutions and agencies require employee upgrading through the offering of various in-service classes. The Division of Continuing Education coordinates with each agency to develop the in-service program most appropriate to their needs.

SPECIAL INDUSTRIAL

Classes may be in the immediate area in which the industry is engaged. The purpose of a course may be pre-employment training, or the upgrading of the skills of present employees.

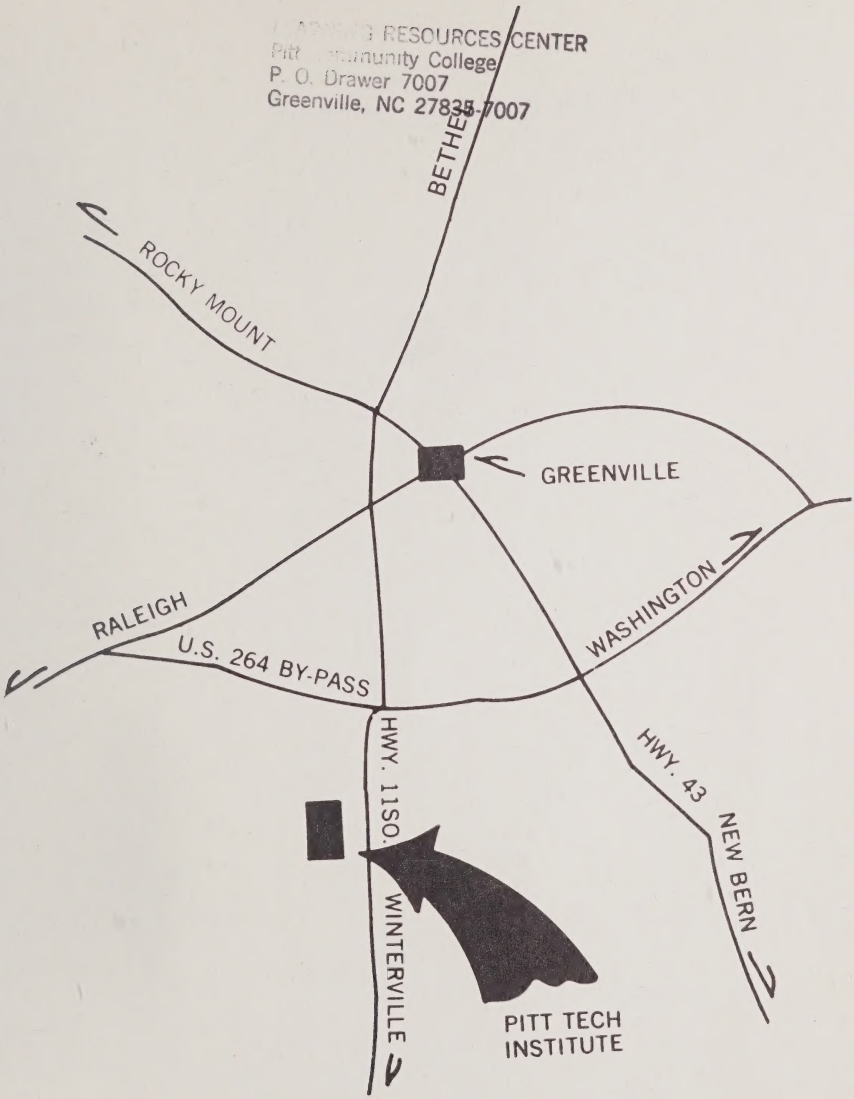
In addition special classes may be developed for training of personnel for a new industry locating in the area or an expanding industry.

Courses are drafted to specific group needs. New programs and classes are scheduled at the time and place convenient to the interested group or individuals.

For assistance in developing occupational extension classes, inquiries and requests are welcomed by the Occupational Extension Director.

SEMINARS AND CONFERENCES

The Institute welcomes the opportunity to assist in the development of seminars and conferences in accordance with special group needs.



LOCATION

Pitt Technical Institute is located on Highway 11, South, approximately one mile south of the Greenville city limits. The Institute is nestled in a grove of pine trees that adds much to the natural beauty of the campus. The campus consists of 67 acres on which two modern, up-to-date buildings stand. Long-range plans call for the construction of several more classroom, laboratory, and general purpose buildings.

PITT TECHNICAL INSTITUTE
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Highway 11, South
Greenville, North Carolina 27834